Chemical Marketing Reporter

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THE MARKETS

CMR MARKET INDEX

CHEMICAL MARKETING REPORTER's market index of chemicals and related materials (100=1974 average), based on 97 key commercial chemicals, appears alongside with data for two weeks ago, last month and last year.

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Oct. 31, 1986	152.13
Oct. 17, 1986	151.25
Nov. 15, 1985	153.25

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STYRENE: Pick-up reflects better demand ... downtime

PVC: Demand is surging and producers ... hikes

LINALOOL, LINALYL ACETATE ... rise

Chemical Marketing Reporter

Air Policy Set 3

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Air Emissions Policy Defined

Environmental Protection Agency completed a seven-year effort last week by issuing final guidelines on the use of emissions trading, or the "bubble," to meet pollution reduction requirements under the Clean Air Act.

The agency's policy, first proposed in 1979, continues to authorize use of environmentally-sound bubbles in all areas of the country and is expected to be widely used by states and industry to save pollution-control costs while insuring continued progress toward clean air.

"The new guidelines represent a tough but fair policy," says Milton Russell, EPA's assistant administrator for policy, planning and evaluation. "The bubble offers needed flexibility, the ability to respond to changing circumstances and stronger incentives for environmental progress."

He said bubbles can encourage innovative emissions control approaches, help reach small or dispersed sources that may be difficult to control directly and secure more reliable, less-polluting changes in industrial processes.

Mr. Russell said the revised emissions trading guidelines "confirm the principle that allowing states and regulated firms to secure equal or better emission reductions at less cost is an important way to help get

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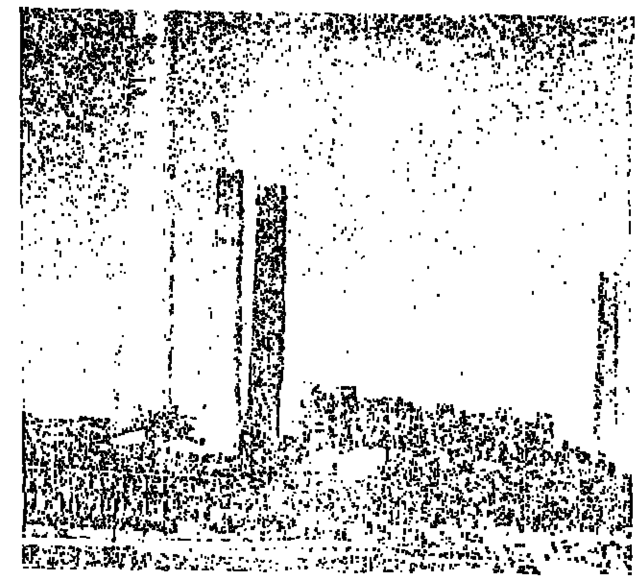

AIR EMISSIONS: Target of new 'bubble' policy. The 'bubble' allows managers of existing plants to treat stacks and vents as if they were enclosed in a giant bubble. Initial reaction from Capitol Hill and environmentalists was mostly negative last week.

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NOVEMBER 24, 1986

Carbide Appears Confident About Blocking Injunction

Union Carbide Corporation last week dismissed the possibility that the district court in Bhopal, India, would permanently bar the company from pursuing its recapitalization and asset divestment program.

On Monday (November 17), the court issued a temporary injunction blocking such activities, pending a hearing on the Indian government's request for a permanent injunction. The hearing is scheduled for Wednesday (November 26).

"We believe the judge will lift his order when he has had a chance to consider the recapitalization program and planned divestitures, which will significantly strengthen UCC's financial position," Carbide said in a statement last week.

A Carbide spokesman in Danbury, Conn., declined to say what the company would do if the court ruled against it. "That's too unlikely a scenario to comment on," he said.

The recapitalization program involves the repurchase by Carbide of $2.5 billion in debt incurred as part of its successful counter to GAF Corporation's tender offer for the company earlier this year.

An American lawyer representing the Indian government said the company was placing the interests of its debtors ahead of those of the victims of the Bhopal gas leak two years ago.

The government's bid to block Carbide's recapitalization and divestment programs is being viewed as an attempt by Indian officials to pressure the company into increasing its previously-rejected out-of-court settlement offer of $350 million.

Carbide last week complained that the government is trying to prevent the company from defending itself against liability for the Bhopal disaster. "To attempt to require UCC now, as the price of defending itself, to be subject to an injunction that prevents it from improving profits, cash flow and net worth, makes a mockery of the due process of law," the company stated.

In a response to the government's suit, and in an accompanying counterclaim filed in Bhopal court last week, Carbide sought to place liability for the accident on the central government and the State of Madhya Pradesh.

Among other things, Carbide argued that the government forced Carbide to manufacture methyl isocyanate at the Bhopal pesticide plant, was aware of the dangers inherent in MIC production, and restricted the parent company's collaboration with its Indian subsidiary in setting up and operating the plant. The company also argued that the state legalized dwellings near the plant, knowing the dangers posed by the plant.

Carbide also cited a design transfer agreement between the parent company and its Indian subsidiary for the production of MIC-based pesticides which relieves the parent company of any liability for damages, injuries or deaths arising from the subsidiary's use of the designs. The agreement was approved by the central government.

Carbide also disclosed evidence last week pointing to the deliberate introduction of water into MIC storage tank 610, causing the deadly gas leak.

President Signs Drug Law, But With 'Mixed Feelings'

Setting aside "mixed feelings," President Reagan has signed into law a measure allowing exports to foreign countries of drugs not yet approved for use in the US, provided they are legal in the other nations.

The new law allows US pharmaceutical companies to begin production of the drugs in this country for sale overseas while waiting for Food & Drug Administration to approve them for the American market.

Without the legislation, US firms would be forced to set up facilities in foreign countries to produce the drugs for any market. The bill also allows the export of certain tropical disease treatments not yet approved in the US.

Gerald Mossinghoff, president of Pharmaceutical Manufacturers' Association, said the export legislation "greatly strengthens the ability of the US pharmaceutical industry to compete in international markets... The legislation will create jobs in the US, stimulate capital investment here and spur exports."

He also said the new law comes as the industry "embarks on an exciting era of new product development, and will help the US maintain its position as the world's leading innovator and producer of pharmaceutical and biotechnology products."

Richard D. Godown, president of the Industrial Biotechnology Association, said the measure will "ensure America's competitive edge in biotechnology... while preserving the integrity of the administration's non-protectionist policies."

He said the legislation is particularly vital for the many small and mid-sized biotech companies that lack the economic resources to set up shop overseas.

"These companies have been forced to await FDA approval while foreign competitors established market dominance or licensed the technology pioneered by US firms," Mr. Godown noted.

President Reagan signed the bill November 14 saying: "On the one hand, I warmly endorse provisions of this legislation permitting the export of unapproved drugs and biologicals under certain conditions and repealing the Federal health planning authorities.

"On the other hand, I have serious reservations about the portion of the bill that would establish a Federal vaccine injury compensation program."

That portion known as the no-fault provi-

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DuPont Chief Says Plants Too Costly

Capital spending projects in the US chemical industry "cost too much and they take too long," according to the top executive of E.I. du Pont de Nemours & Co., who puts capital spending first on his list of challenges the industry will have to deal with successfully if it is to remain competitive worldwide.

Richard E. Heckert, Du Pont chairman and chief executive officer, told members of the Chemical Manufacturers Association, meeting in Chicago last week for the group's thirty-sixth annual chemical industry conference, that the high cost of R&D facilities, product development facilities and commercial plants have a major impact on the industry's competitive position.

"Time and again, I ask myself, why does it take us three years to build a plant to manufacture a product that we've been making for twenty years?" he says.

The Du Pont chairman maintains improvements could be implemented today in the industry's project and construction process that have the potential to reduce the cost of new facilities by 15 to 20 percent.

"A 20 percent reduction can have a real impact," he says. "If instead of making a $100 million capital investment over three years, you can build the same facility for $80 million in two years, you can increase the internal rate of return of a typical project in our industry a full 5 percent."

Regarding the high construction costs, Mr. Heckert feels the chemical industry is not entirely blameless. He says the current engineering and construction industry in the US is dominated by practices "nurtured during the post-World War II era by corporate managements more interested in adding capacity than controlling costs."

Rapidly growing markets permitted producers to pass those costs through to consumers and the industry allowed and sometimes even forced high-cost practices to become standard by giving in to "unrealistic demands" of union labor rather than accept delays due to strikes, Mr. Heckert says.

But the industry had to pay for these policies when the inflationary spiral of the 1970's hit at the same time that foreign competitors entered the picture with products that met or exceeded those of US producers in terms of cost and quality. "Yet we continue to sap our competitive strength with high project and construction costs," he says.

However, there may be a blueprint for turning the situation around. Mr. Heckert says the Business Roundtable's construction industry cost effectiveness project offers remedial actions that could vastly improve engineering, procurement and field construction processes.

Although the AFL-CIO building trades have not accepted the plan, engineers and construction contractors have, and with the emergence of open shop constructors as a dominant force in US major construction, free market forces are expected to bring labor costs back into line. "As you well know, this is happening," Mr. Heckert told the CMA members.

At the same time, he acknowledges that the one group standing to gain the most from the change — owners and managers — have so far responded with only token actions. The Du Pont executive says owners will have to "push for performance in this area," adding that "the bottom line on capital spending is that we'd better get serious about it or it will ultimately do us in."

He cites customer orientation, cost reduc-

Continued on Page 21

Richard E. Heckert

PCB Fine of $1.5 Million Levied Against an Importer and Exporter

Environmental Protection Agency last week issued a civil complaint and assessed a $1.5 million fine against De'Longhi America, Inc., for importing for domestic sale radiator heaters that contained oil contaminated with low levels of polychlorinated biphenyls (PCB's). De'Longhi also exports the PCB-containing heaters without EPA authorization. Both actions are in violation of the Toxic Substances Control Act.. The importing of PCB's for use in the US has been largely prohibited since 1979 because of the risks PCB's pose to human health and the environment.

In April 1986, EPA was notified by the Canadian government of the presence of PCB-contaminated oil in De'Longhi radiators. EPA immediately stopped imports of certain oil-filled radiator heaters pending analysis of their oil content.

Of the samples collected by EPA to date, only oil samples from De'Longhi heaters have been found to contain PCB's. Up to 50 percent of the De'Longhi heaters may be contaminated with low concentrations of PCB's, according to the agency.

Since May 1986, the US Customs Service has cooperated with EPA and its regional offices in an effort to sample and test new shipments of De'Longhi radiators. No PCB's have been detected in recent samplings of De'Longhi radiators and De'Longhi America, Inc., has agreed to certify that each shipment of heaters entering the US will not contain PCB's.

Studies have linked PCB's to chronic health effects in some species of animals and aquatic life. PCB's accumulate in the body and are stored in fatty tissues. Significant exposures could cause gastric disorders, skin lesions, tumors and harm to the reproductive cycle.

Owners of De'Longhi heaters might be exposed to PCB's only if their particular model contained PCB's and if the oil it contained actually leaked out during use.

Ethylene Plant Slated For Taiwan 1989

Formosa Plastics Corporation has awarded Stone & Webster Engineering Corporation a contract to supply proprietary technology and basic engineering and design services for an ethylene plant to be built near Linyuan on Taiwan's southeastern coast. A fast-track schedule calls for the unit to go on line early in 1989.

The 450,000-metric-tons-per-year plant will supply olefins such as ethylene and propylene to downstream manufacturing facilities. Ethylene and propylene are used in the manufacture of polymers and as intermediates in the production of fibers and plastics.

The technology to be employed is Stone & Webster's Ultra-Selective Conversion (USC) Process. Highly efficient USC pyrolysis furnaces permit cracking at various severities, and are thus capable of achieving a wide range of product combinations.

Formosa Plastics Corporation, based in Taiwan, is a diversified manufacturer of plastics and fibers and the largest producer of PVC plastics in the world.

Monsanto Launches Aspirin Investigation

In response to a complaint filed by Monsanto Company, the Federal government has launched countervailing duty and antidumping investigations into imports of acetylsalicylic acid (aspirin) from Turkey.

The investigations concern the import of aspirin containing no additives other than starch, and not imported in tablets, capsules or similar forms for direct human consumption, which are alleged to be subsidized by the government of Turkey.

International Trade Commission will determine whether there is a reasonable indication that US aspirin producers are being damaged by the Turkish imports which are allegedly being sold in the US at less than fair value.

ITC is obliged to complete its preliminary investigation by December 15. Monsanto filed its complaint on October 31.

Huntsman Completes Russtek Acquisition

Huntsman Chemical Corporation has completed the final purchase and full ownership of Huntsman Russtek Polymers, Inc., a manufacturer of expandable polystyrene. Hunstman Russtek, formerly owned 50/50 by Huntsman Chemical and Placements Russix, Inc., will now market all of its products through Huntsman Chemical Corporation.

The existing facilities in Mansonville, Quebec, Canada and Rome, Georgia, in conjunction with a previously owned Huntsman plant in Peru, Illinois, will continue to provide expandable polystyrene products for the North American market.

Huntsman Chemical Corporation, an independent and privately held chemical company, claims to be a world leader in the production of polystyrene and one of the largest manufacturers of expandable polystyrene in North America. Huntsman is also a supplier of styrene monomer for captive use and the merchant market.

Jon M. Huntsman, chairman and president of Huntsman Chemical Corporation stated, "We are pleased to now have full operating control of this portion of our business and look forward to building a stronger relationship with our valued customers."

Henley, ABM Cleared On Confidential Data

Henley & Company, Inc., a subsidiary of Boehringer Ingelheim Corporation, Ridgefield, Connecticut, and ABM Chemicals, Ltd., a subsidiary of Rio Tinto Zinc, the metals and chemicals multinational, presented their defense on November 13, 1986 at the Supreme Court of New York against the contention by Contract Chemicals, Ltd. that they had disclosed or used confidential information (CMR 11/3/86), pg. 28).

The court dissolved its previously temporary restraining order and refused to grant Contract Chemicals, Ltd.'s motion for a preliminary injunction.

The court held that CCL had failed to establish a likelihood of its success on the merits at trial, failed to establish that the information was exclusive to CCL or was disclosed by Henley or used by ABM.

Kerr-McGee Shrinks Soda Ash Production

Soda Products Division of Kerr-McGee Chemical Corporation plans to consolidate and shrink the soda ash production of its three-plant chemical-processing complex in Searles Valley, Calif. Soda ash production at the company's Westend plant, which has been in operation since 1926, will be phased out by the first quarter of 1988.

Soda ash will continue to be in the primary product from the Argus facility. The consolidation will reduce the company's soda ash production by approximately 100,000 tons per year.

The Westend plant will continue to produce boron and detergent-grade sodium sulfate products.

LAB Unit for India

UOP Inc. has licensed to Reliance Industries Ltd. of Bombay, India, a complex for the production of linear alkylbenzene (LAB), a prime ingredient for the production of biodegradable detergents. Under the agreement, UOP will provide a "Pacol" unit and a detergent alkylate unit. The complex, to be located near Bombay in Patalgana, will be capable of producing 50,000 metric tons per year of LAB from a linear paraffin feedstock.

Frank E. Sheeder Jr., who has been named vice-president, international, for GAF Corporation's chemicals business.

Rohm and Haas Sets Acrylic Sheet Unit

Rohm and Hass Company will begin producing acrylic sheet at a new plant in Matamoros, Mexico, during the first quarter of 1987, using the company's proprietary melt calendaring (MC) process.

Commenting on the development, John R. Frazier, the company's business manager for sheet products, said establishment of a plant close to Rohm and Haas's 660-million-pound methyl methacrylate plant at Houston, Tex., "improves the company's ability to serve acrylic sheet customers while remaining competitive against import pressures from developing countries."

Rohm and Haas has been gradually converting all of its acrylic sheet capacity to lower cost processes. The MC process was introduced in North America in 1981 at the company's Morrisburg plant near Toronto, Canada. An installation at Kensington, Conn., followed in 1982 and an 18,000-ton expansion at that site early this year made it the world's largest continuous acrylic sheet plant, Rohm and Haas says.

Shell Forms Venture For Epoxy in Venezuela

Shell Quimica de Venezuela C.A. and Corporacion Grupo Quimico C.A. have agreed to form a joint venture company for the manufacture of "Epikote" epoxy resins in Venezuela. The new company, Epoxiquim C.A., will be owned 40 percent by Shell Quimica and 60 percent by Grupo Quimico and will construct a plant at Valencia, at a cost of about $4 million, for start-up at the beginning of 1988.

Grupo Quimico, one of Venezuela's largest corporations, is pursuing policies aimed at developing new technologically sophisticated products and to substitute for imports. It produces a range of paints, industrial finishes, organic and inorganic pigments, surface coatings and synthetic resins and is the country's largest user of epoxy resins.

Shell Quimica, which markets Shell chemical products in Venezuela, will market most of the output of the new plant.

Shell companies are the world's largest manufacturers of epoxy resins and are major suppliers of the raw materials.

Mallinckrodt Expands

Mallinckrodt, Inc., a wholly owned subsidiary of International Minerals & Chemicals Corporation, will expand its Diagnostic Imaging Services (DIS) network of domestic nuclear pharmacies. The plans call for tripling the number of existing facilities over the next two years.

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Orphan Drugs Tested

Tissue adhesives with ingredients similar to fast-setting "Krazy" glue or "Super" glue will be tested for use in eye and brain surgery under two of 21 new orphan awards from Food & Drug Administration.

The 21 grants provide $2.8 million for researchers studying rare diseases and neglected therapies.

Orphan products include drugs, biologics, medical devices and foods for medical purposes that may be useful in treating rare or common diseases but are not considered sufficiently profitable for manufacturers to pursue commercial development. This is the third year the FDA has been supporting research on orphan products.

The medical adhesive, butyl cyanoacrylate, will be studied by Bionexus Inc. of Raleigh, N.C., in two slightly different chemical forms under two grants.

Under one, a form of the glue with a seven-second setting time will be studied for use in delicate eye surgery. The seven-second setting time should allow doctors to adequately cover the affected area with the glue before it hardens, the FDA said.

The glue would be used on an emergency basis to close perforations of the eye or to treat certain corneal ulcers. It would allow doctors to treat patients immediately. Eventually, FDA said, the glue might replace conventional suturing procedures.

Under the second glue grant, surgeons working with the researcher will use an adhesive with a tenth of a second setting time to repair abnormal openings between an artery and vein located in the brain. These congenital weaknesses can cause symptoms such as severe headaches or strokes.

The glue would be a lifesaving treatment in some high-risk patients with this condition who are not candidates for the standard micro-surgery for resection of weakened blood vessels, FDA said.

Toxic Chemical Residues Are Seen Causing Illness

A nutrition group says thousands of people become ill each year from eating seafood contaminated with toxic chemical residues or bacteria, yet only 13 percent of the fish consumers eat is Federally inspected.

"This is a public health scandal in the making that requires first-rate legislative attention immediately," said Ellen Haas, director of Public Voice for Food and Health Policy, a non-profit advocacy group.

"Government regulation simply is not providing consumers with adequate protection from preventable and costly seafood-related illnesses," said the group's report.

It advocated following the example of Canada, which has become the world's largest fish exporter using tough inspection to guarantee quality.

Public Voice said chemical residues, bacteria, viruses and parasites in fish can cause nausea, cramps, fever, diarrhea, vomiting and even death.

Water pollution caused by industrial dumping and pesticide run-off can contaminate fish with cancer-causing substances such as lead or the banned pesticide DDT. For 26 years until 1972, DDT was discharged daily into California's Santa Monica Bay. Fourteen years later, fish caught near Los Angeles had DDT concentrations 50 times the national average.

Public Voice noted that the Federal Centers for Disease Control said 24 percent of the known food-related illnesses in 1982 were traced to seafood. CDC also estimated the 19,000 people with reported food-related illnesses were as little as 1 percent of actual cases.

Spokesman for the fisheries industry, while saying they also favor a stepped-up inspection program for their products, called the Public Voice warnings overblown.

"Americans eat 350 million to 400 million pounds of seafood a year," said Roy Martin, science director for the National Fisheries Institute. "Where are the people dropping over? We don't have a great big problem. We do have a perception problem."

Richard Gutting, the institute's vice-president and lobbyist, said the industry has urged Congress to improve Federal inspection for two decades. This year, Congress approved money to design an improved inspection and sampling program.

Canadians Give Black Eye To the Chemical Industry

Canada's government should get tougher with the chemical industry and executives of companies caught polluting the environment should be sent to prison, concludes a public opinion survey by Decima Research Ltd. of Toronto, one of Canada's largest polling organizations.

The report, released at a news conference in Ottawa last week, is based on the company's own data and a survey commissioned by the Canadian Chemical Producers Association.

"We got what we asked for," says association president Jean Belanger. "The Canadian public tells us we are self-serving, we don't care about the community we work in and our spokespeople are not to be trusted."

Mr. Belanger says that although the industry has made its share of mistakes, he does not believe its poor image is fair.

"We are not the only industry to have made mistakes, but somehow the fear that is inspired by lack of understanding has made our mistakes seem worse than almost all the others," he says.

Overall, the report found that 69 percent of Canadians believe the government should take action to control environmental contamination by hazardous materials even if those measures adversely impact employment. Most believe the risks of pollution are not worth the benefits to society or the economy.

In the chemical industry, most Canadians believe, the greatest risk involves the storage and disposal of hazardous materials and the least in their actual production.

One-third of the 1,200 Canadians polled believe the risks associated with the chemical industry are growing quickly, and three-quarters say an accident similar to the Bhopal disaster is likely to occur in Canada.

Ninety-five percent of the people sampled said the government should regulate the industry more stringently; 75 percent said chemical companies skirt existing laws; and 65 percent said they believe executives of companies that pollute the environment should be put in jail.

Mr. Belanger says the industry is deeply concerned about its public image and has been taking steps to improve it. He also points out Canada's chemical industry has an outstanding operating safety record.

He says the industry will expand its self-policing programs and is putting more effort into conveying information to the public.

Monsanto Man Sees Slow Growth to '88

The US economy is expected to continue a slow, steady growth pattern through 1987 and probably through 1988 as well, according to Nicholas Fillipello, Monsanto Company economist, who says the chemical industry will benefit accordingly.

Speaking before a panel session on "the new chemical industry" at last week's Chemical Manufacturers Association meeting in Chicago, Mr. Fillipello said the factors that tend to cause recession "simply aren't there."

Inflation is not accelerating, wage increases are moderate and although there is some modest fluctuation of prices nothing would suggest a heating up of the economy.

Further, there is adequate industrial capacity around the world and inventories, with a few exceptions, are under good control, the Monsanto executive says.

Worldwide, he says the consensus on the outlook for the US, Canada, Western Europe and Japan is for real growth in the range of 2.5 to 3 percent in 1987.

TWO KEYS TO '87

Mr. Fillipello sees two keys to 1987 that will impact the chemical industry — international trade and consumer spending. As a result of deteriorating trade values the past two years, "we've had real growth in our economy, in terms of real gross national product, actually penalized by more than 1 percent each year simply because that trade balance has continued to worsen," he says.

But it has been about twenty months since the dollar began to weaken against the major foreign currencies. Correcting exchange rates for inflation differentials, Mr. Fillipello estimates the dollar is now down between 15 to 20 percent. Historically, he says, that should be enough to restore some positive developments in trade.

"For the last couple of months, we've seen some evidence that the trade deficit has been leveling out and maybe even going back in the right direction," he says, noting an encouraging trend since early this year in chemicals, paper, electrical machinery, computer equipment and others.

The chemicals surplus was about $7.2 billion last year and is running at roughly the same rate in 1986, Mr. Fillipello says. Actually, the industry has not been hit hard on a direct trade balance basis, but has been hurt over the past five years in translation of foreign earnings back into dollars and, more importantly, by the direct trade impact on downstream customers.

Mr. Fillipello sees a primary risk to improvement in international trade in the world economy in the emerging trend toward protectionism. "As a result of the recent elections, I suspect we're going to see a trade bill gain high priority in the new Congress," he says.

However, he is hopeful that a combination of factors will enable the economy to avoid the dangers of protectionist legislation. For one thing, he says it is obvious there will be a Presidential veto of any seriously protectionist legislation and it is hoped the Uruguay GATT round will provide an opportunity for reducing trade barriers.

Also, Mr. Fillipello says that before the end of 1987 the US could begin to see a modest improvement in the Federal budget deficit if the economy continues to grow. Not generally recognized, he says, is the fact that Department of Defense spending authority has actually been flat since 1985 and that would make the difference.

Consumer spending, accounting for roughly two-thirds of spending in the economy and at least that much in end-use demand in the chemical industry, has been

Continued on Page 46

Nicholas Fillipello

Grace Assays New Catalysts To Reduce Nitrogen Emissions

W.R. Grace & Co. last week said it has begun trial production of catalysts at its recently completed plant in Bergisch-Gladbach, West Germany, that will help to "significantly reduce" smokestack nitrogen oxide emissions from power plants. Nitrogen oxides can combine with other elements in the atmosphere to form acids which are said to contribute to the "acid rain" problem.

The trial production will allow for adjustment of the main equipment and procedures as well as to train the key personnel for the production. The industrial production will be ready to start in January 1987 with a capacity of 2,000 cubic meters of catalysts per year.

The plant will be operated by Feldmuehle-Grace Noxeram GmbH, established in 1985 as a 50-50 partnership between Grace, an international chemical company with interests in natural resources and consumer services, and Feldmuehle AG, a West German producer of paper, packing and industrial products. Grace has provided the technical manager and Feldmuehle has appointed the general manager of Noxeram.

The plant will manufacture extruded honeycomb structures 6 by 6 inches wide and ranging from 20 to 40 inches in length, which are based on titanium oxide and contain the catalyst components. The catalyst systems are designed to drastically reduce smokestack emissions by converting the flue gas and injected ammonia into nitrogen and water.

This new plant is the result of 1985 licensing agreements with three Japanese firms—Sakai Chemical Co. Ltd., Mitsubishi Petrochemical Co. Ltd., and Mitsubishi Heavy Industries Ltd.—to apply their technologies for a honeycomb catalyst production facility in West Germany. Their technology has been used commercially in Japan since the end of the 1970's.

"In 1983 and 1985, Germany enacted legislation that calls for meeting new and stringent pollution control requirements by the early 1990's," says Robert W. Samuels, a Grace executive vice-president and head of the company's Industrial Chemicals Group. "The catalysts manufactured at this plant will allow German industry to meet those goals with systems in place by 1988," he adds.

"Countries around the world are regulating nitrogen oxide stack emissions," according to Dr. F. Peter Boer, a Grace senior vice-president and head of its corporate technical group. "If a political decision is made in the US, this catalyst technology can be used to help reduce the acid rain problem in the US as well."

Gary D. Corson, who has been named director of chemical purchases at Eastman Chemical Products, Inc.

Pesticide Registration Could Cost $163,100 Under Proposed Fee

Environmental Protection Agency is proposing to charge pesticide manufacturers fees of up to $163,100 for the registration of their products—a plan strongly opposed by the chemical industry.

The agency says the fees would cover some of the costs now incurred by EPA in reviewing and registering pesticides. The recovered fees, expected to approach $18 million annually, would be deposited in the general treasury.

Currently, fees for establishing tolerances or permissible pesticide residue levels are the only Federal costs paid by companies that register or license pesticides. These tolerance fees recover $1 million to $2 million per year, according to EPA.

Scott Ferguson, vice-president and general counsel of the National Agricultural Chemicals Association, says the industry will challange the registration fees because it believes EPA lacks the authority to impose them.

EPA says it is proposing the fees under the Independent Offices Appropriation Act, which authorizes agencies to establish user fees.

"We have considerable reservations that EPA has authority under that law or any other Federal law to impose these kinds of fees," says Mr. Ferguson.

As part of a compromise legislative agreement with environmentalists on amendments to the Federal Insecticide, Fungicide and Rodenticide Act, NACA supported a one-time fee of $150,000 for the re-registration of older pesticides that are already on the market but have never been adequately tested for safety.

The FIFRA bill died in the final hours of the legislative session due to disagreements over other issues.

"I think the House and the Senate will have some interest in what EPA is proposing now," says Mr. Ferguson.

The proposed fee system is based on the average EPA costs of processing and reviewing certain registration applications: new pesticides, new registration of previously registered chemicals, new biochemical or microbial pesticides, experimental use permit to field test a pesticide chemical, and food additive tolerance permits.

Before a pesticide can be distributed for sale in the US, it must be registered with EPA under FIFRA. In order to do so, manufacturers are required to provide the agency with health and ecological data.

On the basis of a scientific review of the

Continued on Page 17

Superfund Unit Is Established By the Senate

Sen. Frank Lautenberg (D-N.J.) has been appointed chairman of a new watchdog subcommittee to assure compliance with superfund and other Federal environmental laws.

The subcommittee, one of five on the Senate Environment and Public Works Committee, will also have legislative jurisdiction over superfunde. Therefore, all legislation affecting superfund must pace through the new panel.

The Superfund and Environmental Oversight Subcommittee, set up at Sen. Lautenberg's request, was created primarily to assure that the new superfund law is fully complied with.

"We've recently written some tough laws," says the Senator. "Now we need oversight to assure compliance with the new laws and the ones already on the books. That is why I pushed for the creation of this new subcommittee."

The watchdog panel will have oversight responsibility over all issues under the Environment and Public Works Committee, including landfill regulation under the Resource Conservation and Recovery Act, the Safe Drinking Water Act, Clean Water and Air acts, and ocean incineration.

Jordan Phosphate Backing?

The US Export-Import Bank is considering $20 million in credit support for the Jordanian phosphate industry, a move which critics say would be a direct violation of a new congressional mandate.

Gary D. Myers, president of Fertilizer Institute, describes the timing of the loan's consideration as "more than pure coincidence," noting that Congress is not in session.

Approval of the $20 million loan to the Jordan Phosphate Mining Company would contradict the Eximbank reauthorization bill passed by Congress last month, Mr. Myers says.

The measure bars the use of Eximbank funds to establish or expand production of another nation's export commodities if such products are in world surplus, if they compete directly with similar US products, or if such assistance would cause substantial injury to US producers.

"Last month, Congress pointed to past Eximbank phosphate loans as particularly injurious to US producers, yet Ex-Im seems determined to challenge the Congress by considering this latest Jordanian request," says Mr. Myers.

Jordan is seeking the loan in order to purchase phosphate mining equipment. The request comes at a time of massive worldwide phosphate oversupply and a severely curtailed US phosphate industry. A United Nations/World Bank working group estimates current phosphate oversupply at 4 million tons.

Jordan annually mines approximately 6.3 milllion tons of phosphate rock, but consumes only 20,000 tons domestically. The remaining tonnage competes directly with US phosphate rock exports.

FDA Man Decries Fear Of Chemicals

US consumers worry too much about the chemicals used in their food and should instead be more concerned about the growing problem of disease-causing microbes in the food supply, says the government's top food safety official.

"There is in this country something that can only be called 'chemo-phobia,' " says Sanford A. Miller, director of Food & Drug Administration's Center for Food Safety and Applied Nutrition. "People are simply afraid of anything with the title chemical bestowed on it," he says.

Mr. Sanford says a recent FDA study of the most widely-used and best-tested food additives showed that the allowed levels for most of them had safety margins far in excess of the minimum necessary to protect the public. Yet, he adds, convincing the public of that is extremely difficult.

While the agency has poured a great deal of its resources over the last 30 years into evaluating the safety of chemicals and in determining exposure levels of chemical contaminants in foods, it has not paid adequate attention to monitoring microbiological hazards, says Mr. Sanford.

"What has become apparent is that the hazards associated with chemicals in foods are very low—in large measure because of the actions we've taken. What we're now observing is an increasing number of illnesses associated with food-borne disease, some of which are associated with an increasing laxity in sanitation," Mr. Sanford notes.

"The conclusion we came to," he says, "is that we have to pay a great deal more attention to microbiological hazards."

Mr. Sanford says FDA recently reviewed the safety data on 160 of the most heavily-used and best-tested food chemicals and found that the safety margin for more than 90 percent of the compounds was a thousandfold or more and, on the average, was ten thousandfold.

"This is a tremendous margin of safety, particularly when you consider that current exposure for humans is very low and the toxicity of these things is not very high," he says.

Public concern about food additives, preservatives and pesticides is largely misplaced, according to the FDA official. "Most people don't realize how safe the food supply is from a chemical point of view," says Mr. Sanford.

Toxic Chemicals Get New Limits From US Agency

Environmental Protection Agency has issued final regulations establishing a threshhold quantity for 402 chemicals found on the agency's list of extremely hazardous chemicals.

The rulemaking action was required within 30 days of enactment of the new superfund legislation, signed into law by President Reagan October 17.

EPA says any facility where an extremely hazardous substance is found in excess of the threshhold planning quantity is required to notify its state and local community emergency preparedness officials by May 17, 1987.

In addition, the rule also codifies the reportable quantity levels and notification requirements for facilities with extremely hazardous substances present.

The regulations continue the process, initiated last November in EPA's chemical emergency preparedness program interim guidance, to foster preparedness against chemical accidents at the local level.

Surplus Could Be Detrimental Official Tells Manufacturers

A top Reagan Administration trade official says it may not be desirable — or possible — for the US to run a trade surplus. "It's clear you can't continue to run a $170 billion trade deficit," Deputy US Trade Representative Michael Smith told the National Association of Manufacturers Thursday.

"But Im not sure that it's right to say the US must have a trade surplus, aside from whether it is obtainable in today's world," he added.

Mr. Smith suggested that a large US trade surplus "would be just as much trouble" for the world economy as its huge deficit is today and he questioned whether the world could absorb so many American exports.

He said the administration's plans for trade legislation next year "have not been fully developed but are under discussion."

Mr. Smith stressed that while the administration would like renewed authority to negotiate a new international trade agreement as part of a trade bill, it will not accept legislation if "it becomes a Christmas tree."

US Trade Representative "Clayton Yeutter welcomes the authority to negotiate a new world trade agreement but we're not going to sell our soul," Mr. Smith remarked. "We don't want it with all sorts of conditions that would be counterproductive to the goals" of liberalizing world trade.

US negotiating authority expires at the end of 1987 and most trade experts agree it would help the US's bargining power if it had new long-term authority going into the talks, which are expected to last at least four years.

The purpose of the talks are to update and revise world trading rules set out in the General Agreement on Tariffs and Trade (GATT), to reduce protectionism, and to expand world markets.

Although the chemical industry is one of the few US businesses still providing a surplus to the nation's overall trade deficit, the surplus has been declining annually.

The chemical trade balance has dropped 37 percent since 1980, when the US exported $12.2 billion more in chemical products than it imported. The Commerce Department estimates the chemical trade surplus will diminish again this year.

Ron Lang, president of the Synthetic Organic Chemical Manufacturers Association, recently said he believes the upcoming round of talks, expected to begin in Geneva, Switzerland in January, will be the most important ever for the chemical industry, possibly affecting its profitability and growth.

Drexel Financing Is Big Question In Revlon Bid

Drexel Burnham Lambert Inc. has consistently demonstrated its ability to raise high-cost financing for mergers, but because of the storm raging around the Ivan Boesky insider trading case, the stock market last week registered a little bit of doubt about Drexel's ability to finance Revlon Inc.'s attempted takeover of Gillette Company.

Late last week Revlon said that Drexel Burnham had reaffirmed its commitment and ability to finance the $4.12 billion attempted takeover of the Boston, Mass.-based manufacturer of razor blades, toiletries and other consumer products.

A day earlier, when it was disclosed that Drexel is the subject of investigations by Securities & Exchange Commission relative to the Boesky and similar dealings, the price of Gillette's stock fell more than $7 per share, evidencing doubt that the merger would be consummated.

In litigation filed early in the week, Gillette charged that Ronald O. Perelman, Revlon's chairman, illegally informed insiders in the market of his plans to attempt an acquisition of Gillette.

Mr. Perelman replied that the charges are "a desperate and untruthful attempt to taint this offer in the light of totally unrelated events of the past week."

News Capsule

Immunex Pilot Plant

Immunex Corporation plans to build a $4 million pilot plant to produce pharmaceuticals for use in FDA clinical trials and expanded research. The development facility will be funded and owned by Immunology Ventures, a joint venture of Immunex and Eastman Kodak Company formed this year to develop products based on human immune system modulators for possible application in treatment of cancer, arthritis and immune system disorders.

EPA Slates Reviews

Environmental Protection Agency's interagency testing committee has named four chemicals for priority review within the next year. They are: C.I. Disperse Blue 79, isopropanol, methyl ethyl ketoxime, and methyl tert-butyl ether. Tributyl phosphate was also designated for review within 12 months. It was cited for review last year, but not within the one-year time limit.

Bioassay Ends Talks

Bioassay Systems Corporation has terminated negotiations to sell its toxicology facility in Decatur, Ill. The company previously announced that it expected to enter into a definitive agreement to sell the facility by mid-December. Bioassay says it is not presently negotiating with any parties for the sale of the facility.

Degussa Opens Center

Degussa Corporation has officially opened its new applied research and technical service facility in Allendale, N.J. Degussa actually started operations there a year ago, and had been completing construction modifications and equipment installation since then. Functions performed at the facility include customer formulations and product testing, quality control and technical support and safety advice for products made by the company's chemicals and pigments divisions.

Carbide Unit Moves

Union Transformer Services Inc., a subsidiary of Union Carbide Corporation, has moved its corporate headquarters from Dublin, Ohio, to Charlotte, N.C. The company uses proprietary technology to reclassify PCB-containing transformers to non-PCB status.

CPC Plans Sale

CPC International Inc. is offering its European corn wet milling business for sale. The business currently accounts for about $1 billion in net sales. Sale of the unit is part of the company's restructuring strategy to seek future growth mainly from its US and worldwide grocery products businesses.

Sun, Dainippon Agree

Sun Chemical Corporation and Dainippon Ink & Chemicals, Inc. have signed a definitive agreement for the sale of Sun's graphic arts materials group to Dainippon for approximately $550 million in cash. Execution of the agreement with Dainippon has been a pre-condition to Sun's proposed merger with Chromalloy American Corporation. The merger is subject to a definitive merger agreement and to approval of shareholders.

Ciba-Geigy Spill

A Ciba-Geigy plant in Switzerland reportedly emitted a phenol-laden cloud into the atmosphere last week, heightening public concern about the chemical industry. The Ciba-Geigy plant is near the Sandoz warehouse in Schweizerhalle, which was responsible for the release of toxic chemicals into the Rhine River two weeks ago.

UOP Licenses MTBE Unit

UOP Inc., a unit of Allied-Signal Inc., has granted a license to Compania Espanola de Petroleos of Spain for the construction of a unit to produce 45,000 metric tons a year of MTBE at CEPSA's refinery near Algeciras. The MTBE technology was developed by Huels AG of West Germany.

Mario Concha, who has been named vice-president, international, for Occidental Chemical Corporation's overseas operations. The appointment follows OxyChem's recent acquisition of Diamond Shamrock Chemicals Company.

Yves St. Laurent, Of France, Buys Charles of The Ritz

Squibb Corporation, the Princeton, N.J.-based maker of pharmaceuticals and consumer products, which last Summer put its Charles of The Ritz fragrance facility up for sale, settled on a buyer last week—Yves St. Laurent, the Paris clothing design firm.

St. Laurent, with the help of an Italian investor, Carlo De Benedetti, was able to outbid Avon Products Corporation and several others.

Preparation for the St. Laurent bid was made last month when Cerus SA, an investment firm in France, acquired a 25 percent stake in Saint Laurent, a move that provided St. Laurent with the financial muscle needed to compete against the world's largest cosmetic company.

Cerus is controlled by Mr. DeBenedetti, the chairman of Ing C. Olivetti & Co.

The acquisition of Charles of the Ritz will be made by a new company to be established by Cerus and St. Laurent, which will be capitalized at $175 million, with $25 million provided by Mr. DeBenedetti.

Alcoa to Acquire Aerospace Firm In Los Angeles

Aluminum Company of America, Pittsburgh, Pa., has agreed to acquire TRE Corporation, Los Angeles, a producer of light-weight metallic and nonmetallic structures for aerospace and defense applications and of home building products.

Alcoa will make a cash tender offer for all common shares of TRE for an aggregate of $46.38 for each common share and related TRE obligations. Dealer/manager for the offer, which has been approved by TRE's directors, will be First Boston Corporation.

The acquisition would give Alcoa, one of the country's three largest producers of aluminum, additional support for its strategy to become a worldwide supplier of engineered materials and systems.

TRE's strengths are said to be in technology for manufacturing advanced aerospace, marine and defense structures. These have been consistently identified as priority areas for Alcoa's growth strategy, stated Charles W. Parry, Alcoa's chairman and chief executive officer.

Goodyear Buys Out Its Hostile Pursuer

Goodyear Tire & Rubber Company, Cleveland, Ohio, has bought out its hostile pursuer, the international financier Sir James Goldsmith, at a handsome profit for Sir James, and has also scheduled a massive buyback of its shares that will give its own stockholders a chance to benefit also.

Together, the two stock purchases will total nearly 50 percent of the company's outstanding shares, but the maneuvers, as they have for other companies, should get Goodyear home free.

The big buyback from the public is similar to merger defenses successfully employed by Union Carbide Corporation, Phillips Petroleum Company and Unocal Corporation, while the buyback from Sir James is the "greenmail" route taken several years ago by Ferro Corporation and Pennwalt Corporation against hostile pursuers.

Goodyear agreed to pay Sir James $49.50 per share for his 11.5 percent stake in the company. This total of $618.8 million will give Sir James a tidy profit in the $95 million range.

On the public side, Goodyear will make a tender offer for 40 million shares at $50 a share, or a total of $2 billion.

The settlement with Sir James ends a merger contest that was rapidly expanding into a social and political issue, as did the acquisition of Marathon Oil by United States Steel Corporation (now USX), about three years ago. In this case, the resentment was aggravated by the fact that Sir James is a European.

In Congress, several lawmakers criticized the Reagan Administraiton for its hands-off policy and said Congress must take away some of the weapons corporate raiders use when firms like Goodyear face a hostile takeover bid.

At a House judiciary subcommittee hearing last week on hostile takeovers and their impact on competitiveness, Goodyear chairman Robert Mercer endorsed Federal laws to clamp down on hostile takeovers.

"The laws have to be changed to eliminate this approach to American industry," he said.

"The administration's 'hands-off' approach doesn't make any sense," said Sen. Howard Metzenbaum (D-Ohio). "There are specific steps Congress can take early next year."

"This committee hearing is the first step in asking you for protection from the free capital market," Mr. Goldsmith told the panel. "The appropriate response to competition is

Continued on Page 24

Dioxin Threat Overstated?

American and Italian researchers say they have found that dioxin caused no apparent serious harm to children exposed to the toxic chemical by an industrial accident.

The scientists report that among 1,500 youngsters examined, those exposed to the highest concentrations of the dioxin compound TCDD had slight abnormalities in liver function and fat metabolism, but these disappeared over time.

The children were between the ages of six to ten when several hundred grams of dioxin were released into the air from a plant near Seveso, Italy, in July 1976. Some suffered chloracne, a skin rash, at the time.

"While we can say that in children of Seveso the acute phase of intoxication by TCDD passed with no appreciable consequences, it remains to be established over a longer period of time whether there will be a higher incidence of tumors," the scientists wrote in the *Journal of the American Medical Association*.

Since the accident, 30,000 people living downwind of the plant have been given regular medical examinations. A cancer registry has been set up to monitor tumor development.

Dioxin is a byproduct of manufacturing processes that create herbicides, pesticides and other chemicals. On the basis of animal studies, scientists have concluded the substance can cause cancer in humans, particularly a form that attacks muscle, fat, nerves or connective tissue. Most other dioxin studies have concentrated on adults.

The study was conducted by Dr. Paolo Mocarelli and colleagues at the University of Milan in Italy, and others at the University of Pennsylvania and American University in the US.

Greenwell Montagu Boosts Rating on Montedison Stock

Greenwell Montagu Securities, of London and New York, has boosted its rating on the stock of Montedison SpA, of Italy, from hold to either buy or hold, and has lowered its investment opinion on BOC Group (formerly British Oxygen Company) Hoechst AG, Laporte Industries Ltd., Rhone Poulenc SA and Yorkshire Chemicals PLC.

Improved fundamentals of Montedison's shares, relating to the company's strong market positions in its broad line of chemicals, consumer products and consumer services, will now be given greater recognition by the market, stated Start Wamsley, David Ingles and Judy Shaw.

This recognition has been delayed recently by the sale of shares to take profit on a rights issue and market speculation about Montedison's now successful campaign to acquire Fondiaria against the opposition of much of Italy's financial establishment, the analysts noted.

BOC's shares have been marked down from hold or buy to simply hold because the shares have run up to a price level that will not be easily improved upon. Hoechst's market outlook actually has improved with plans for the Celanese merger, but the possibility of another rights issue could restrain the share price for a while, the analysts said.

Laporte, previously rated hold, has been marked down to hold or sell because the price has risen significantly in response to the purchase by Solvay of an interest in the company, and it is now likely that profit taking will set in, the Greenwell Montagu analysts comment.

Rhone Poulenc and Yorkshire both have been lowered from hold to hold or sell. On the French company, the analysts are skeptical about the planned acquisiton of Union Carbide Corporation's agricultural chemical operations, and they also want to see how well the new management works out before making a commitment. Yorkshire is rated satisfactory on fundamentals, but the shares have had a strong run-up and the next move is likely to be profit taking, it is commented.

The Greenwell Montagu analysts have reaffirmed previous buy recommendations on BASF AG, Bayer AG, Cookson Company and Imperial Industries, Ltd. Rated sell are Foseco Minsep and L'Air Liquide SA.

OILS, FATS & WAXES

Cottonseed Oil Expected To Tighten This Crop Year

Production of cottonseed oil in the US is expected to be off by 25 percent this year, according to Department of Agriculture figures. USDA attributes this low forecast to a 1986 government program to reduce cotton acreage in the Us. People in the industry, meanwhile, feel that the cotton oil market will be additionally tightened by competition for cottonseed from the dairy feed industry.

The Foreign Agricultural Service (FAS) forecast for US cotton oil production stands at 363,000 metric tons (MT) for this year, down 25 percent from the preliminary estimate for last year's crop of 484,000 MT.

The basis for the figures is the success of the 1986 Upland Cotton Acreage Reduction Program, according to FAS. The program called upon cotton farmers to cut their planted acreage by 25 percent, in an effort to avoid repeating the previous year's surplus of lint cotton, used in textile applications, according to USDA sources. Sources note that the program met with nearly 100 percent participation by the nation's cotton farmers.

The resultant reduction in cottonseed is expected to be aggravated by competition from dairy farmers using seed for feed. This has been a growing problem for cotton oil producers, who are finding it increasingly difficult to the cattle industry, sources say.

FAS is calling for a reduction in the seed tonnage going to cattle feed this year, from last year's estimate of 1.7 million tons to the current forecast of 1.5 million tons. Despite this reduction, the percentage of seed used for feed is expected to climb from last year's already higher-than-usual 35 percent. "My guess is it will be closer to 45 percent," says an industry source.

LESS OIL AVAILABLE

Consequently, the amount of oil available this year is expected by some to be lower than the crop reduction would indicate. "The oil reduction will be more like 35 to 40 percent," says a producer, who goes on to say that "the government figures don't take into account that the seed yield is down."

The tight availability of oil will not be in conflict with volume of demand, which is currently quite low, sources say. Buying had been strong a few weeks ago, but it eased off when the price of competing oils came down.

"The market is very, very quiet," says a source, who says that buyers and sellers are currently about 1 cent apart. Another source predicts that the cotton oil price will come up some more in the near future. "Cotton oil will become a product like peanut oil," he says, indicating that it will become a relatively high-priced specialty oil. The current pricing and the tight supply situation make it unlikely that the competitive position of cottonseed oil will improve very much this year.

FISH OILS

MENHADEN OIL — The price of crude menhaden oil is quoted at 12c. per pound on the Atlantic Coast, works, and at the Gulf it is quoted at 13c. per pound, same basis. Supplies are said to be limited at the moment, with US fisheries out of production season.

The domestic market is relatively strong, says an industry source, who cites growing interest in the health benefits of fish oil as a primary reason. Export business is said to be slow, as shipping has just been completed on previous orders to Europe.

VEGETABLE OILS

SAFFLOWERSEED OIL — The extent of the damage to the safflowerseed crop has become clearer, says a source, who estimates that more than 70 percent of the crop in the Montana area has sprouted. This premature sprouting was due to heavy rains earlier in the season, and has resulted in suppliers being reluctant to put their material on the market, in order to protect their low supplies.

While sprouting does not necessarily render the seed unusable, it does require that the seed be processed to a greater degree, say an industry source. Some buyers have complained of darker oil, a typical result of the kind of damage experienced by this crop. Paint and varnish producers need the oil to be light in color so as not to conflict with the pigments in their formulations.

At this point, the majority of the crop oil has been committed, a source says, with most of the free oil now being produced by damaged seed. "Most of this oil (from sprouted seed) will have to be mixed with good oil," the source says. Since most buyers' near term needs have been met, they are said to be staying away from the market at present. The price for non-break oil in tanks in N.Y. is currently quoted at 50c, per pound, and edible oil in drums is priced between 78c. and 80c. per pound, delivered in N.Y.

SOYBEAN OIL — Soy oil pricing has been level, as demand is beginning to slack off. While shipments of oil are said to be steady at the moment, as past sales are filled, new orders are hard to come by, according to an industry source. "Without new orders to stimulate the market, things are very slow," says a source.

PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

CHANGES/UP

Cottonseed oil, NY, 1½c. per lb.
Lard, loose, bulk tanks, Chicago divd, ½c. per lb.
Peanut, 50% bulk, SE, $5 per ton

CHANGES/DOWN

Corn oil, Midwest, ½c. per lb.
Linseed, extracted, 34% bulk, Minn., $5 per ton
Palm oil, NY, ½c. per lb.
Peanut oil, Southeast (restricted), 1c. per lb.
Soybean, 44% bulk, Decatur, $3.90 per ton
Soybean oil, Decatur, ¼c. per lb.

OILS, FATS INDEX

The Oils, Fats & Waxes Index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Nov. 21,. 1986	80.47
Nov. 14, 1986	81.81
Oct. 24, 1986	80.49
Nov. 22, 1985	84.96

Chemical Prices Start on Page 28

FRIDAY SPOT PRICES

MARKET CLOSE NOV. 21, 1986

CRUDE VEGETABLE OILS		
Coconut oil, NY	lb.	.21¾
Coconut oil, Pacific	lb.	.NA
Corn oil, Midwest	lb.	.20
Cottonseed oil, Valley	lb.	.17½
Linseed oil, Minneapolis	lb.	.25
Palm oil, NY	lb.	.16
Peanut oil, Southeast (restricted)	lb.	.29
Soybean oil, Decatur	lb.	.1416
REFD. VEGETABLE OILS		
Coconut oil, t.w., NY	lb.	.26
Corn, jumbo tanks	lb.	.2816
Cottonseed oil, jumbo tanks, NY	lb.	.27¼
Peanut oil, jumbo tanks, NY	lb.	.37½
Soybean salad oil, NY	lb.	.1890
OILMEALS		
Cottonseed, 14% bulk, Memphis	ton	$150
Linseed, extracted, 34% bulk, Fargo	ton	$105
Peanut, 50% bulk, SE, Alabama	ton	$170
Soybean, unrest., 44% bulk, Decatur	ton	$151.90
FATS & GREASES		
Grease, white, choice, tanks, divd., NY	lb.	.10¾
Grease, yellow maximum 10%, ffa tanks	lb.	.9½
Lard, loose, bulk tanks, divd., Chicago	lb.	.13½
Tallow, inedible, fancy, tanks, divd., NY	lb.	.12¼
Tallow, inedible, blch., tanks, divd., NY	lb.	.12

PET Market Seen Rising To $2.2 Billion

With a 5 to 6 percent annual growth rate, the polyethylene terephthalate film market, now estimated at $1.8 billion, will increase to $2.2 billion by 1990, according to Andrew Eldib, president of Eldib Engineering & Research, Inc., Berkeley Heights, N.J.

Imports make up an estimated 10 to 15 percent of US PET film consumption. Since 1984 Japanese and Korean PET film makers have increased their market shares, while French and English exporters have lost ground, according to a study on the US PET film business by Eldib.

Switzerland is the only European competitor to increase its share of the US PET film market. In many cases consumers reported that they could get imported film cheaper and better in quality than domestic film, Dr. Eldib says.

Dr. Eldib believes that Korean PET film makers will claim a larger and larger part of the pie as their production capacity grows. In spite of recent currency adjustments, producers from Japan will keep their prices competitive in order not to lose market shares. He expects PET film imports to increase with Japanese producers in the forefront of the market.

To counter the effects of the strong yen, Japanese PET film makers are scrambling to team up with US end-users in joint ventures to convert PET film into electronic products, Eldib notes.

Several Japanese makers have formed technology agreements with California-based companies to mutual gain. The US companies benefit from the momentum of Japanese global economic expansion, and Japanese companies stem the effects of trade imbalances and the devaluation of the dollar, Eldib points out.

While the packaging market is maturing, the PET film magnetic recording market has tremendous growth potential because of the widespread consumer use of blank video cassettes. Companies that make PET film for flexible packaging are moving quickly into more advanced applications, such as flexible printed circuits.

The growth of PET film's many end-use industries ensures the steady growth of PET film demand. The 7 major end-use markets covered in the Eldib study have good growth potential and can make use of the high strength, durability, dimensional stability, chemical inertness, and clarity that PET film offers.

AROMATIC ORGANICS

Benzene Firms on Spot Market; Contracts Are Poised to Follow

The spot benzene market firmed up substantially last week, prompting two producers to raise contract pricing for December, with others expected to follow suit.

The spot market rose steadily to a 92-cent-per-gallon level late in the week. The previous week, spot benzene was quoted at 87 cents per gallon, equal to the predominant industry-wide contract level.

Sun Company Inc. increased its contract pricing by 4 cents per gallon to 92 cents per gallon early last week from a level of 88 cents per gallon. Exxon boosted its contract price 5 cents per gallon on Friday to 92 cents.

Late on Friday, Standard Oil Chemical Company raised contract prices 5 cents to 95 cents per gallon. Shell Chemical Company, another major producer, has not announced yet.

It is pointed out that both Exxon and Shell have experienced some shortness of supply this quarter, and that this has contributed to the upward pressure on the market. Exxon has experienced operational difficulties related to a hydrocracker fire several weeks ago. One source estimates that the company has been buying 150,000 barrels of benzene per month. Shell is said to be borrowing material on a regular basis in order to meet commitments.

SHELL CANADA OUTAGE

Shell Canada recently lost about twelve days of benzene production at Scotford, Alberta, due to a catalytic reformer problem. The company says that it was compelled to shut its styrene plant for a week, but that it was able to meet all its contract commitments.

Petro Canada Ltd. in Montreal was down for a considerable part of October, and is not expected to be a factor again in the merchant market until year's end.

With these production shortages and strong derivatives demand, the benzene market is described by industry sources as fairly tight. "Styrene producers all are running full blast. They need the benzene, are able to pass-through the (higher pricing), and are taking as much as they can get their hands on," says a trader.

One industry participant comments that "styrene producers have not been opposing benzene increases, and styrene buyers have not been putting up any opposition (either)" during the recent months' upward spiral.

Assessing the styrene market in light of the imminent December 1 upturn in benzene contracts, one styrene producer observes that "the market appears to be tight from the buying side..., benzene shipments are dragging.

"There are a lot of TVA's (temporary voluntary allowances) out there" that can be removed on short notice, he observes, and producers "are waiting in the weeds to see if there's any groundswell" on pricing.

In less that three months' time, spot benzene pricing has firmed 15 cents per gallon, and styrene contracts have risen approximately 5 cents per pound. While there has been some strength in crude oil and gasoline values during this period, sources say, the aromatics market has firmed beyond simply reflecting these prices.

Industry players remark that, while the US market is tighter than the world market as a whole, the European market has been fairly strong as well, and benzene exports to the US have not been heavy.

BHT — PMC Specialties Group, Inc. announced this month that it will be raising list pricing on butylated hydroxytoluene by 5c. per pound, effective Janury 1.

"CAO-1" technical-grade material increases to $1.31 per pound from $1.26 per pound. "CAO-3" food-grade material moves up to $1.33 per pound from $1.28 per pound. It is said that the company's list pricing is no higher than it was two years ago.

PMC expects the list move to be reflected in selling prices. "The market is not outstanding, but it is reasonable to believe (the change) will stick," says a company spokesman, although another adds that "we won't be non-competitive."

An attempt by PMC to raise prices in August did not succeed, and one competitor observes that "PMC has moved up and down a few times on list pricing, and nobody else has moved at all." According to this source, there has not been any significant movement in selling prices for about a year.

Nonetheless, one producer, Borg-Warner Chemicals, say it will support the move by raising off-list pricing by 5c. per pound. Neville-Synthe Organics Inc. says it is studying the situation.

PMC says the price increase can be attributed to a decline in the pressure exerted on the market by European imports; and other producers agree that the downward trend in the value of the US dollar has had a substantial impact.

Producers acknowledge that demand and pricing for BHT have been adversely affected this year by a trend toward the use of new, high-performing phenolic antioxidants. One producer estimates that 2 to 3 percent of BHT consumption has been lost. There is said to be downward pressue in pricing for these competing materials related to patent expirations.

Prior to any increase in BHT pricing, selling levels are quoted at slightly under $1.20 per pound. Producers quote list price levels between $1.25 and $1.40, with Uniroyal Chemical Company on the high end.

A Uniroyal spokesman says that, because of the company's higher price, it is holding its list steady at this time. "We've always been at least 5c. per pound higher" than other producers, he says, even though "we've lost a little market share" on account of that policy.

TOLUENE — The spot toluene market was quoted last week at 70c. per gallon, a 3c. per-gallon increase from the previous week's level of 67c. per gallon.

The upward move is attributed to rising benzene and gasoline prices. In addition, it is noted that the European toluene market has been tight.

A spot xylene price of 76½c. per gallon was quoted last week, unchanged from the week before. An industry source says that this market has been steady to slightly weak in recent weeks, primarily on account of downward pressure from the paraxylene sector.

Spot paraxylene pricing was quoted at 16½c. per pound, compared with 17¼c. per pound level quoted in early October. "The new Japanese plants are coming on, and whether or not they're on yet, they're trying to sell," says a domestic producer.

PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

CHANGES/UP
None

CHANGES/DOWN
None

AROMATICS INDEX

The Aromatic Organics index reflects the prices of 14 representative materials in this sector and the quantity of each produced in 1985.

Nov. 21, 1986	167.84
Nov. 14, 1986	167.84
Oct. 24, 1986	167.84
Nov. 22, 1985	167.84

Chemical Prices Start on Page 28

Air Emissions Poli[cy]

Continued from Page 3

interim environmental progress ... Clean Air Act, especially in severely ... areas where most large plants are ... well controlled."

Initial reaction from Capitol Hill ... ronmentalists, however, was mostly ... tive.

A staff counsel to the House Energ[y] ... Commerce subcommittee on health ... environment said the regulations will ... crease compliance with Clean Air Act ... dards in areas that still fail to meet the ...

"It pretty much guarantees the ... quo," said the counsel, noting that ... million people live in noncomplying ... such as New York, Houston, Los ... Pittsburgh and Denver.

David Doniger, senior attorney ... Natural Resources Defense Council ... policy will result in "a giveaway ... get....Sources that have untapped ... reduction resources ought to be ... over to the public. Instead they're ... shell game, and the air stays ..."

The bubble allows managers of ... plants to treat all their stacks ... though they are enclosed by a ... and control less where control costs ... in exchange for extra, compensating ... sion reductions where control costs ... tively low, so long as equal or better ... tions are achieved at the top of that ...

Because it often costs many times ... remove a pound of the same pollutant ... one stack as from another one ... block, such bubbles can save several ... dollars per transaction over the cost ... ing traditional uniform requirements ... the same or better environmental ...

"This new policy strengthens and ... EPA's past efforts to use economics ... erate environmental progress," Mr. ... said. "Use of bubbles was already ... lished under previous EPA policies ... back to 1979 and has been estimated ... dustry to save the economy hundreds ... lions of dollars. Similar approaches ... ing important contributions to our ... phase out lead in gasoline, reduce the ... asbestos and secure efficient further ... tions from various sources under the ... Water Act."

EPA's first bubble policy was ... help the agency address expanding ... responsibilities and decreasing envir[onmen]tal returns. A 1982 interim Emissio[ns Trad]ing Policy enlarged that early eff[ort], grated the bubble with ... incentive-based approaches and stre[amlined] many approval requirements.

The new policy tightens requirem[ents] ... existing-source bubbles, banking and ... bubble rules, which allow states to ... individual bubbles without case-by-case review. Among other steps, the policy ... vides for more regular EPA oversight ... rules.

It also requires bubbles in all areas ... duce any hazardous or potentially hazar[dous] emissions, meet rigorous accounting ... designed to prevent hidden emission ... creases and publicly state all changes in ... tual as well as permissible emission levels ... their ambient effects will be clearly ...

ALIPHATIC ORGANICS

Acetic and VAM Prices Rise As a Tight Market Persists

Extreme tightness in the acetic acid and vinyl acetate monomer markets have enabled producers of the two aliphatic chemicals to push through higher prices in the fourth quarter. In many accounts, acetic acid sellers succeeded in pushing a 1-cent-per-pound increase through, while VAM makers hiked prices 2 cents per pound.

"We've been in 'sales control' for the past two months," one acetic acid producer says. He describes this as limiting purchases to a regular total which forces the company to turn away larger-than-usual orders.

The acetic acid market has been running at over 90 percent of capacity all year, sources say, but has grown extremely tight in recent weeks following turnarounds taken by Celanese at Clear Lake, Tex. and USI at Deer Park, Tex.

The two facilities, which have a combined acetic acid capacity of 1.64 billion pounds, were down for three weeks and six weeks, respectively. The USI facility returned to service last week, the company says, after work was completed on the syngas unit in Deer Park.

As a result of this supply tightness, producers were largely successful in passing through the 1-cent acetic acid increase. Both the acetic acid and vinyl acetate monomer increases "went through fairly cleanly," one producer says.

Another seller says the increase was "fairly successful," save for those customers with protective clauses written into their contracts. This seller says the market price for acetic acid now stands at 17 cents to 18 cents per pound for mid-sized customers.

OPERATIONAL PROBLEMS CITED

The market tightness for acetic acid was partly caused by "operational problems" at several plants, one producer says, and inventories fell to uncomfortable levels. He says the industry started to catch up until the two plant turnarounds again stretched the supply chain.

Demand for acetic acid this year has been described as steady if not spectacular. Including exports, US consumption is expected to reach 3.2 billion pounds this year, while capacity stands at 3.7 billion pounds. The long-term forecast calls for demand to grow at under 2 percent annually.

Despite these modest demand projections, the market is expected to remain tight through the middle of next year. The acetic acid unit owned by Sterling Chemical in Texas City (the material is marketed by BP) is expected to take a short turnaround next month, and is then scheduled for a four-to-six-week shutdown in the second quarter of 1987. Celanese will take another three weeks of downtime at Clear Lake in March to finish the maintenance work started this Fall.

Two producers, Celanese and Sterling, have the ability to expand their acetic acid capacities, but neither company is planning to do so in the near future. Celanese could add 160 million pounds to its Clear Lake total and Sterling could expand by 110 million pounds at Texas City, but since growth is forecast at 1.5 percent a year or less, producers say current nameplate, if running smoothly, is sufficient.

In addition to hiking prices for domestic customers, sources say the export price of acetic acid has risen 1 cent a pound as well. Exports are expected to grow from 237 million pounds in 1985 to 275 million pounds next year.

Further ahead, new capacity overseas is expected to reduce US export shipments. At the moment though, the snug domestic supply-demand balance has reduced the availability of acetic acid for overseas shipment.

The acetic acid price firming is in sharp contrast to the price trends of the acid's two main raw materials, propylene and methanol. Propylene producers had no success in pushing up prices in October, and list prices remain mired at 9½ cents per pound. Methanol has been on a long, steep skid all year, falling from 40 cents per gallon in January to 26 cents per gallon at present.

The vinyl acetate monomer increase has been somewhat more spotty than the acetic acid hike, but the price is definitely firming, sources say. Some firming in the ethylene market and the tightness of raw material

PRICES TRENDLINES
WEEK ENDING NOV. 21, 1986

CHANGES/UP
None

CHANGES/DOWN
None

ALIPHATICS INDEX
The Aliphatic Organics Index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

Nov. 21, 1986	222.[illegible]
Nov. 14, 1986	222.[illegible]
Oct. 24, 1986	222.[illegible]
Nov. 22, 1985	222.[illegible]

Chemical Prices Start on Page 28

acetic acid supply were cited as the major factors in the VAM market. A 2-cent price increase raises selling prices to about [illegible] cents to 29 cents per pound for medium-sized accounts, delivered.

An exporter of VAM, says the export price for VAM increased the full 2 cents. He describes the market as extremely tight. "Even if you wanted to export VAM, you couldn't," he remarked.

Meanwhile the main consumers of VAM, polyvinyl acetate producers, continue to struggle. An excess of supply has made the market extremely competitive, sources say and there is little chance higher raw material costs will be passed through for the foreseeable future.

ISOPROPANOL — US production is up [illegible] percent through the first half of the year, according to Commerce Department. Market observers say this is due to a combination of an improved trade balance and increased domestic demand.

Improved foreign trade is the main factor in the improvement. Through September of this year, imports are down 24 percent to 84.7 million pounds. Likewise, exports are up a surprising 40 percent, to 188.6 million pounds.

Both the softening of the dollar and higher European production costs are credited for the net increase in trade. Costs for raw material propylene in Europe are considerably higher than they are in the US.

In addition, US demand for the [illegible] based chemical is proceeding at GNP or better in some end-use segments, according to one producer.

One producer is posting a list price of [illegible] to $1.50 per gallon, depending on location. This price is said to have been fairly firm this Summer when import pressure was at a low, but became softer once the flow resumed. Imports are said to be drying up once again however, so firmer pricing may be on the way.

2-ETHYLHEXANOL — Market participants say that a 2c.-per-pound price increase has been largely successful, although [illegible] contract-protected customers have yet to be affected by the announcement.

The major impetus for the [illegible] tively tight supplies, on both a [illegible] level. Since the shutdown of BA[illegible] plant, US producers have [illegible] above 90 percent of rated capacity [illegible] ducer is said to be currently [illegible] allocation basis with its customers.

The world situation should [illegible] next few months as a 100,000-[illegible]

ALIPHATICS

cility in Poland is said to be coming on stream this month. The material is likely to be exported to the Far East before it is the US, however.

In the US, supply snugness is expected to continue at least through the first quarter of next year.

Through the first half of the year, US production is up over 8 percent, compared to the same period last year. Part of this is due to the Montreal closure, but part is due to increased US demand.

Use as a cetane enhancer is singled out by one producer as a strong market currently. Sales to the US DOP business are also healthy; DOP imports are coming in at an annualized rate of only 9 million pounds this year, as compared to a total of 25 million pounds last year.

The current list price of 34c. per pound, delivered is considered reasonable for average-sized buyers.

MTBE — Although toluene advanced 3c. per pound last week on the coattails of a strong benzene market, little or no movement in methyl-tert butyl ether prices was reported.

Sources attribute the lack of price change to sluggishness in the octane market, where MTBE is exclusively used. One marketer said that even his toluene sales went to dehydroalkylation for benzene production, rather than for octane use.

Pesticide Fee

Continued from Page 7

data, EPA determines whether a pesticide can perform its intended funcion without causing "unreasonable adverse effects" on human health or the environment while taking into account the potential benefits of the proposed use.

The $18 million in fees the agency expects to recover annually under the proposed rule is slightly more than one quarter of all costs EPA expended in fiscal 1985 to conduct pesticide activities.

In addition to proposing a fee structure for certain registration activities, the agency is also seeking comments regarding the establishment of a more comprehensive fee system in the near future which would cover the scientific and administrative costs of maintaining all registrations for both new and old pesticides.

This system would increase collections by approximately $22 million to a total of $40 million, or approximately 60 percent of all costs expended on pesticide activities by EPA in fiscal 1985.

The future fee structures would cover many of the ongoing activities in EPA's pesticide program not covered by the plan proposed last week.

These include such issues as determining data gaps in older pesticides and requiring these data from registrants; conducting special reviews of chemicals which may pose a health or environmental risk; auditing laboratories and their health data to assure that health and environmental effects studies used in support of pesticide registrations are complete and valid; and the re-registration of older pesticides.

EPA is considering two options for the planned registration fee structure.

The first is an annual-fee approach. It would cover scientific review and transaction costs, prorating the average costs among producers of each active ingredient, with an annual fee for each year the registration remains on the market.

The agency has proposed the following fee schedule: new chemicals, $163,100; old chemicals, $3,500; new use, $29,900; amendment, $600; new biomedical, $56,000; experimental use permit, $4,000; and food additive regulation, $5,300.

DRUGS & FINE CHEMICALS

Anti-Consulvant Switching Is Linked To Renewed Seizures

The medical soundness of having epilepsy patients switch from brand name to generic anti-convulsants, or vice-versa, is being questioned by The Epilepsy Institute and some suppliers of anti-convulsant drugs. The switching from brand name to brand name, or from generic to generic, is also under scrutiny.

Physicians and some market observers worry that switching anti-convulsants can trigger renewed seizure activity in previously seizure-free epilepsy patients. This concern is growing because, with the increasing popularity of generic drugs, switching is becoming more common. Often, pharmacists will switch a patient to a generic drug if allowed to, say observers.

Therefore, The Epilepsy Institute, based in New York, has launched a campaign, urging physicians and pharmacists not to change their epileptic patients' anti-convulsants once a regimen has been established. Approximately 2 to 3 million epilepsy patients take anti-convulsants.

The problem with switching anti-convulsants, says Dr. Hart Peterson, is that not all anti-convulsants are absorbed or excreted at the same rate, so protective blood levels may not be sustained. "A slight change in absorption rate can make the difference in having a seizure," claims Dr. Peterson, a member of The Epilepsy Institute's advisory board, and a professor of neurology and pediatrics at New York Hospital and Cornell Medical Center. "We are becoming increasingly aware of the potential non-equivalency."

SWITCHING POLICIES

Dr. Peterson says that New York State has a good system of prescribing drugs which, if adopted by all the states, would decrease the number of renewed seizures. In New York, physicians instruct the pharmacist to either switch or not to switch. However in other states, such as Florida and Massachusetts, pharmacists are allowed to switch at their discretion.

The specific generics being looked at are carbamazepine, phenytoin and valproic acid, the most common anti-convulsants used for treating epilepsy patients. Respectively, the brand name products using these active ingredients are Ciba-Geigy ("Tegretol"), the Parke-Davis divison of Warner-Lambert ("Dilantin"), and Abbott Laboratories ("Depakene").

"The problem of therapeutic equivalence between different anti-convulsant agents has been established," acknowledges a Parke-Davis spokesman. "We don't advocate change (of medication) without closely monitoring the patient."

Ciba-Geigy has no comment, but acknowledges that since May it has been notified of 11 cases of renewed seizures caused by switching.

A spokesman from Abbott says his company has made no public statement, and is not yet prepared to do so. However, he admits the company has heard of three cases of renewed seizure activity following a switch.

Spokesmen say their companies learned of these cases from the physicians whose patients suffered relapses. This is common, say observers, noting that word-of-mouth has played the major role in making this problem known.

This is disturbing to a spokesman for the Food & Drug Administration, who says he has never heard of any adverse reactions caused by switching. FDA has approved all the previously named anti-convulsants, and says they are therapeutically equivalent. "I'd like to see cases and patients," says the spokesman, who adds that he doesn't like speculation with "no hard data."

Dr. Peterson stresses that changes in federal law aren't being sought, which is why FDA has not been petitioned. He says while The Epilepsy Institute does not perform studies, many neurologists intend to hold a conference about this topic in the future, and that some hope to conduct a study.

PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

CHANGES/UP

None

CHANGES/DOWN

None

DRUGS INDEX

The Drugs & Fine Chemicals Index reflects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

Nov. 21, 1986	211.[illegible]
Nov. 14, 1986	211.[illegible]
Oct. 24, 1986	211.[illegible]
Nov. 22, 1985	211.[illegible]

Chemical Prices Start on Page 26

CAFFEINE — Pfizer Inc. will be raising its prices for anhydrous caffeine effective December 1.

The new truckload price will be $5.85 per pound, an increase of $1. Five thousand pounds will cost $5.90 per pound, and less than 5,000 pounds will cost $6 per pound. Freight is prepaid on quantities of 3,000 pounds and more.

"Pricing has been depressed since 1981 because of currency fluctuations," says a Pfizer spokesman. With this increase, Pfizer will charge a uniform price nationwide. Previously, the price differed west of Denver.

MALIC ACID — Major suppliers of malic acid agree that growth has been substantial

BOTANICAL DRUG IMPORTS: SEPTEMBER

CENSUS BUREAU REPORTS ON SELECTED BOTANICAL DRUGS.

		SEPTEMBER QUANTITY	SEPTEMBER $ VALUE	AUGUST QUANTITY	AUGUST $ VALUE
Agar	lb.	174,253	993,258	241,432	[illegible]
Balsams, nat. napf.	lb.	2,668	15,614	14,522	[illegible]
nat. styrex	lb.	6,603	19,226	3,120	[illegible]
nat. tolu	lb.	—	—	3,527	[illegible]
Crude animal glands, organs and parts	lb.	42,304	119,298	6,549	[illegible]
Ginseng roots	lb.	2,119	80,506	199	[illegible]
Ginseng, adv.	lb.	48,017	331,405	35,791	[illegible]
Glycosides	lb.	14,891	266,844	19,219	[illegible]
Gum, Arabic	lb.	830,753	1,029,248	786,686	[illegible]
Gum, Guar, nat	lb.	2,350,599	1,200,895	1,671,770	[illegible]
Gum, Locust Bean	lb.	80,611	407,363	363,539	[illegible]
Gum, Karaya, nat.	lb.	72,752	47,764	70,493	[illegible]
Gum, Tragacanth, nat.	lb.	—	—	4,410	[illegible]
Licorice root	lb.	—	—	35,191	[illegible]
Natural crude drugs, bile, other animal secretions	lb.	9,726	18,000	5	[illegible]
Natural crude drugs, napf.	lb.	544,435	1,594,430	641,020	[illegible]
Natural adv drugs, animal origin, napf.	lb.	9,820	20,140	4,007	[illegible]
Natural adv drugs, misc.	lb.	210,636	812,168	346,560	[illegible]
Pectin	lb.	500,076	1,819,488	266,560	[illegible]
Poppy straw extract	lb.	—	—	—	[illegible]
Psyllium seed husks	lb.	409,612	434,970	674,613	[illegible]

DRUGS & FINE CHEMS

in 1986. Estimates of industry growth range from 10 to 20 percent.

"Demand is up appreciably from the previous 12 months," claims a spokesman for Denka Chemical Corporation, the domestic producer. Denka took over Alberta Gas Chemicals' domestic production this year.

Denka's spokesman notes that malic acid is increasingly being used with aspartame. Others concur that this use has been rising, and most believe it will continue to do so.

One source also mentions an increased usage in the dry powdered beverage market, and in the fruit-flavored candy market. "Gummi Bears" are an example of this candy.

Malic acid is competitive with citric acid, and even has the same list price (81c. per pound). One source says that many malic acid users were switching to citric acid because of supply shortages. Now, he says, malic acid's supply is improved, in both quantity and quality. Sources say suppliers are more committed to producing good product.

While suppliers expect good growth, most won't specify. However, one spokesman thinks the industry could see 10 percent growth over the next three to five years.

SODIUM ERYTHORBATE — Pfizer Inc. is increasing its price for sodium erythorbate, effective December 1.

Truckload quantities will cost $2.75 per pound, up from $2.60 per pound. West of Denver, the price will rise to $2.77 per pound, up from $2.62 per pound.

This is Pfizer's first sodium erythorbate increase since November 1982, says a spokesman.

Drug Export

Continued from Page 3

sion applies to vaccines for childhood diseases such as polio, measles, diptheria, tetanus, rubella, smallpox, and mumps.

It provides for compensation for the medical, rehabilitation and education costs for children who are injured by the vaccines, leaving the court process open only to those hurt or disabled through negligence.

Supporters argued that most children never receive court awards because negligence on the part of a physician or manufacturer is difficult to prove and, in the case of those who are compensated, much of the money is eaten up by legal fees.

They were also concerned that high insurance costs would lead pharmaceutical firms to end production of the vaccines or to dramatically raise prices.

Chief sponsors of the health package were Sens. Orrin Hatch (R-Utah), Paula Hawkins (R-Fla.), and Edward Kennedy (D-Mass.), and Reps. Henry Waxman (D-Calif.), and Edward Madigan (R-Ill.).

Sen. Kennedy called the bill "vital legislation" and said the President's decision to sign it "is the best omen so far for a productive 100th Congress," which will be led by Democrats when it convenes in January.

Du Pont Chief Says

Continued from Page 3

tion, research and development and "a management commitment to creating wealth as opposed to rearranging it" as other top priorities if the chemical industry is to remain competitive in the years ahead.

Actually, the industry has done pretty well relative to other industries, Mr. Heckert says. US chemical exports are expected to total about $22 billion this year, while imports will finish out the year at some $15 billion, giving the industry a $7 billion positive trade balance.

However, he also notes that the US annualized total merchandise deficit remains about $165 billion and cautions that the chemical industry's competitive strength should not be taken for granted.

Mr. Heckert told the CMA members that in his view customer orientation goes well beyond the basics of cost and quality. "Partnership is something of a cliche, but it is a key concept in today's marketplace. Until we have gotten into the habit of looking at our businesses through the eyes of our customers, we haven't truly entered into partnership with them," he says.

He also points out that Du Pont has restructured some of its operating departments to "reflect the markets we serve rather than the products and services we offer" and has fostered the "business ownership" concept that encourages employees to "look for ways to serve the customer better, at lower cost and with fewer people."

The latter includes giving employees a bigger role in making the business perform, he says, noting that unless this is done "you've gotten smaller, but you haven't gotten better."

Serving high technology markets successfully means a strong credible R&D program, Mr. Heckert says, adding that Du Pont spends on average nearly 4 percent of sales on R&D compared to an all-industry average of 3 percent. More important, he says, only 3 percent of the chemical industry's R&D is government-funded as compared to 34 percent for all industry. "In our industry, we call the shots," he says.

Finally, Mr. Heckert sees a need for corporate managers to commit themselves to creating wealth as a key to competitive strength. "One unfortunate byproduct of corporate bureaucracy in recent years is a preoccupation with rearranging wealth instead of creating it," he says.

"Corporate raiders, arbitrageurs, megamergers, greenmail and the like have become part and parcel of corporate life in the 80's. Profitable or devastating as these schemes may be depending on one's role, most of this stuff is smoke and mirrors. No wealth is created when an unfriendly takeover sends a stock price skyrocketing," he says.

Chemical Finance

Synbiotics Raises Revenue, Cuts Loss Sharply

Synbiotics Corporation, San Diego, Calif., a leading developer and manufacturer of monoclonal antibodies, boosted its fiscal second-quarter revenues more than six-fold to $1,135,454 from $147,426 a year earlier, while its net loss in the quarter (ended September 30) was sharply reduced to $50,602 from $148,259.

During the quarter, Synbiotics completed a secondary public offering of common stock yielding net proceeds of $3.8 million, which will be used to accelerate the introduction of diagnostic products for humans, noted Edward T. Maggio, president and chief executive officer.

Laser Industries' Earnings Increase 53 Percent

Laser Industries Ltd., of Tel Aviv, Israel, a leading developer of lasers for medical and other purposes, had record net sales of $7,730,000 in the second fiscal quarter ending September 30, up 26 percent from $6,132,000 a year ago. Net income rose 53 percent to $1,133,000 from $735,000, but the increase in earnings per share was smaller — from 21 cents to 25 cents per share — because the number of shares outstanding increased substantially between the two periods.

In another development, Laser Industries began shipments of the "Sharplan 784 Laser Rectoscope," a reportedly unique carbon dioxide laser endoscopic system for removal of rectal growths including cancerous growths and obstructions, polyps and hemorrhoids.

Cabot Corporation Adopts 'Poison Pill' Defense

Cabot Corporation, Boston, Mass.-based producer of energy materials, carbon black and specialty chemicals, has adopted a standard version of the "poison pill" defense against a hostile acquisition, but the company said it is not aware of any current efforts to acquire Cabot. The company will issue rights to shareholders, exercisable under certain conditions indicative of a hostile merger attempt, which will enable the holders to buy shares of Cabot stock worth twice the exercise price of the rights.

ChemClear Has Record Sales and Net Loss

ChemClear Inc., Wayne, Pa.–based processor and treater of industrial waste, had record high sales in the third quarter of $5,755,591, up from $3,934,367 a year ago, but because of a special charge related to previously accumulated waste, the company had a net loss of $475,146, as compared with earnings of $601,131.

Marion Raises Dividend 40 Percent

Directors of Marion Laboratories, Kansas City, Mo., have raised the quarterly dividend on the common stock by 40 percent from 5 cents to 7 cents per share, payable January 9 to holders of record on December 19. At the firm's annual meeting in Kansas City shareholders ratified the retention of Peat, Marwick, Mitchell & Co. as independent public accountants.

In addition, shareholders voted to increase the number of authorized common shares from 100 million to 170 million. Total shares outstanding on June 30 were 74.6 million.

Norton to Buy Carborundum Abrasives

Norton Company, Westcester, Mass., has signed a letter of intent to acquire Carborundum Abrasives Company, a unit of Peck-Lynn Group, Ltd., a closely held company based in Chicago. Norton manufactures abrasives, ceramics and petroleum drilling products. Carborundum, based in Niagara Falls, N.Y., manufactures coated abrasives.

Schering-Plough Proposing Stock Split, Dividend Hike

Schering-Plough Corporation, of Madison and Kenilworth, N.J., said that Robert P. Luciano, chairman and chief executive officer, intends to propose to the board of directors that shareholders be asked to approve an increase in the company's authorized common shares to 300 million at the April 1987 annual meeting to permit a two-for-one split of the company's stock.

Mr. Luciano also expects to recommend that, based on anticipated 1987 earnings, the corporation's annual dividend rate be increased to $2 per share on the pre-split shares, an increase of 11.1 percent.

Goodrich Offering 2 Million Shares to Public

B.F. Goodrich & Co. is offering to the ublic 2 million shares of its $3.50 cumulative convertible preferred stock, Series D, at a price of $50 per share, through Goldman, Sachs & Co. The preferred is convertible into Goodrich common at $55 per share, subject to adjustment under certain circumstances.

Newmont Boosting Its Interest in Peabody Holding

Newmont Mining Corporation, New York, has agreed to increase to 61.47 percent its interest in Peabody Holding Company through the purchase of the 30.735 percent share held by Williams Companies, of Tulsa, Okla. Gordon R. Parker, chairman, president and chief executive officer disclosed. The purchase price is $320 million. This will just about double Newmont's existing holdings.

Tenneco Redeeming $65 Million Debentures

Tenneco Incorporated, Houston, Tex., has elected to redeem on January 6, 1987, $65,242,000 principal amount of its 15 percent debentures due 2006 in accordance with the terms of such debentures. In addition, a subsidiary, Houston Oil & Minerals Corporation, will prepay $56 million of indebtedness owed to institutional lenders.

Novo May Buy an Interest in Ferrosan

The international investment bank of Goldman Sachs has been in contact with Novo Industri A/S and other companies in and outside of Denmark with a view to the divestment of shares of the Ferrosan Group which could contribute to the development of Ferrosan.

"As Ferrosan has got far in areas of research within which Novo's pharmaceutical R&D is also working, we are currently investigating — through talks with Ferrosan — Novo's interest in pursuing this possibility," said a spokesman for Novo in their New York office. Novo is the world's largest producer of industrial enzymes and one of the largest manufacturers of insulin.

HEAVY & AG CHEMICALS

Frasch Sulfur Producers Cut Tampa Prices by $5 Per Ton

Frasch sulfur prices are decreasing by $5 per long ton under pressure from a beleaguered phosphate fertilizer industry. Observers say that Gulf Coast area recovered sulfur prices should respond with a similar decline.

Freeport-McMoRan Resources Partners and Texasgulf Chemicals Company have both announced decreases in the price of sulfur from $157.50 to $152.50 per long ton, f.o.b. Tampa, Fla., terminal, with equivalent decreases in delivered sulfur prices to domestic customers in other regions. New prices take effect immediately, as contracts permit.

In addition, both producers note that competitive allowances for domestic contract customers will remain in effect at this time. These allowances are based on the level of contract compliance and usually amount to as much as $10 per ton at normal delivery levels.

Industry sources say the decrease was actually initiated by the third US Frasch sulfur producer, Pennzoil Sulphur Company. Pennzoil, however, will not comment on the matter.

Pennzoil is said to have been particularly pressured into making the change by CF Industries, its largest sulfur customer. Other phosphate producers note, however, that the phosphate industry as a whole had been pressing Frasch sulfur producers to lower prices, even to the point of threatening to cancel contracts and look for material on the world market.

RECOVERED SULFUR LOWER

Market observers say that, historically recovered sulfur prices, although lower than Frasch prices, respond to changes on an essentially one-to-one basis through a de-escalation clause built into contracts. Sources say recovered prices are currently in the $115-to-$120 per long-ton range f.o.b. Gulf area refinery, and around $120 or $122 per ton, delivered to the Houston area. One buyer says some recovered sulfur makers are looking at December 1 as an effective date.

Sulfur prices on the world market have been steadily slipping over the course of the year, again due to weakness in the world fertilizer market. For instance, prices for Canadian sulfur, f.o.b. Vancouver and intended for export, have dropped as much as $10 per ton this year, and are currently close to $130 per metric ton.

Ironically, most sulfur analysts still feel the long-term world sulfur price outlook is eventually for significant increases, beginning possibly next year. This is because, despite lower demand, sulfur stockpiles in Canada continue to dwindle, and their exhaustion later this decade will put a crimp on supply.

Frasch sulfur's importance has diminished somewhat this year, as it is backed out of the market by more prevalent material recovered from petroleum refining. Through September, according to Bureau of Mines, petroleum recovered production is up almost 35 percent, to 2.6 million metric tons, while Frasch production is down 14 percent, to 3.1 million metric tons. Natural gas recovered production is also down slightly, to 1.6 million metric tons.

Increased recovered production is said to be attributed to increased refining of higher sulfur crudes by US oil companies. Middle Eastern and Venezuelan crudes are singled out as main contributors.

CHLOR-CAUSTIC OUTPUT

SEPTEMBER: SHORT TONS/DAY

	SEPT.	AUG.	SEPT. '85
CHLORINE			
Gas Produced*	28,125	27,493	27,743
Liquid produced	23,851	23,256	23,124
Liquid shipped	13,950	13,543	12,797
CAUSTIC SODA			
Liquid produced**	29,663	29,385	29,605
Solid produced	643	658	764
CAPACITY	35,060	35,060	36,640
OPERATING RATE	92.2%	90.2%	80.2%

Source: Chlorine Institute.
*Includes amount liquefied.
**Includes amount later converted to dry caustic.

PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

CHANGES/UP
None

CHANGES/DOWN
None

HEAVY & AG INDEX

The Heavy & Ag Chemicals Index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Nov. 21, 1986	113.69
Nov. 14, 1986	113.69
Oct. 24, 1986	113.69
Nov. 22, 1985	113.69

Chemical Prices Start on Page 28

BASES & SALTS

ALUMINUM SULFATE — Effective immediately or as contracts permit, Delta Chemical Corporation is increasing its off-list prices for liquid aluminum sulfate by $8 per ton, dry basis.

Prices are f.o.b. Baltimore. Delta will continue to offer freight equalization with competitive producing plants, as applicable.

Delta's increase follows similar announcements by Tennessee Chemical Company, Stauffer Chemical, General Chemical, and General Alum & Chemical.

LITHIUM CHEMICALS — Foote Mineral Co. is raising its prices for various lithium chemicals by 5 percent, effective December 1. The increases are for truckload quantities.

Lithium bromide brine will rise by 20c. to $4.12 per pound; lithium chloride brine will increase by 14c. to $2.95 per pound; lithium chloride anhydrous' price will move up 17c. to $3.49 per pound; and lithium fluoride's price will jump by 25c. to $5.21 per pound.

According to a spokesman for Foote, prices are rising because of increased labor, raw material and transportation costs.

FERTILIZER MATERIALS

POTASH — Cominco American Inc. announced a new price schedule for potash, effective November 1.

For ton quantities (minimum 60 percent K_2O), standard costs $52; special standard, $53.50; coarse, $57; and granular, $58.50. Prices are f.o.b. Vade, Saskatchewan, in US dollars.

The terms of sale follow: for shipments from November 1 through November 30, there is a storage allowance, or rebate, of $8, with a $3 cash discount, 30 days net March 31; from December 1 through January 18, the storage allowance is $6, with a $2 cash discount, 30 days net March 31; from January 19 through February 28, the storage allowance is $4, with a $1 cash discount, 30 days net March 31; from March 1 through March 31, the storage allowance is $2, net 30 days; and from April 1 forward, there is no storage allowance, net 30 days.

"These are tough times for agriculture," says a Cominco spokesman. He claims a restructuring of the price schedule is necessary to regain lost profits.

Goodyear Takeover

Continued from Page 9

to compete, not seek artificial protection."

Goodyear, headquartered in Akron, Ohio, operates 100 plants around the world and has about a 23 percent share of the global tire market. It has assets of $4.6 billion.

Several congressmen, including Rep. John Seiberling, D-Ohio, described corporate raiders as profit-seekers who engage in "corporate strip-mining" by selling off assets, eliminating jobs and leaving behind financially weakened companies.

The takeover threat, they said, will force American companies to focus on short-term profits instead of long-term competitiveness.

Textile Exports Limited by Japan

Japan has agreed to limit textile and apparel exports to the US to about eight-tenths of one percent annually through 1989 under an accord reached with the White House trade office.

Japan is the fifth largest supplier of textiles and apparel to the US in both volume and value, accounting for 6.5 percent of total US textile imports.

According to Deputy US Trade Representative Michael B. Smith, the new agreement will reduce Japan's apparel and textile growth rate from the 17 percent which occurred in the first nine months of 1986 to less than 1 percent, retroactive to January 1...

"In addition," says Mr. Smith, "this ... textile agreement will reduce the possibility of illegal transshipments by establishing ... visa system which will require Japan to certify, and US Customs Service to verify, the country of origin of all textile exports from Japan."

Carbide Ag Chem Sale

A previous report on the sale of Union Carbide Corporation's agricultural products company (CMR, 11/17/86, pg. 3), incorrectly reported the price involved in the sale. Rhone-Poulenc of France has reached agreement to purchase the Carbide unit for $... million in cash. Annual sales of the agricultural products company amount to $450 million.

COATINGS & PLASTICS

Epoxy Makers Lining Up Behind October's Advances

Price increases in epoxy resins have apparently held firm, according to two major producers. The price hikes were scheduled to take effect in October. Since that time, steady trading of the resins has been taking place at the new levels, according to sources.

Dow, Ciba-Geigy and Reichhold all announced price increases on their epoxy resins. Dow and Ciba-Geigy announced increases effective October 1, while Reichhold scheduled increases for October 16.

All of these companies raised pricing on their liquid epoxy resins by 4 cents per pound, and by a 3 cents per pound for solid grade. On solution-grade, the range of price hikes was from 2 cents to 3 cents.

Producers had been reporting very low margins this year on epoxy resins. The market saw considerable discounting during the course of the year, attributed largely to import activity. While imports represent a relatively small percentage of the total US market, they had a significant effect on pricing of domestic material.

PREVIOUS DISCOUNTING

The earlier discounting, in addition to being the result of supply and demand pressures, also involved customer expectations regarding falling crude oil prices, according to an industry spokesman.

Although there is relatively little direct impact from crude oil on pricing of epoxy resins, consumer demands in this area are a factor in softening the price, the source says. "Whether this was a real expectation or a negotiating strategy," he says, "the customers were fairly successful in getting the prices lowered."

At the same time the discounting was occurring, raw material prices were also falling. However, producers frequently complained that prices on the finished product were falling more rapidly than raw materials costs.

Further cutting profitability this year have been increases in labor costs and outlays associated with compliance with environmental regulations.

Current raw material pricing is described as firm. Epichlorohydrin pricing rose last month, as producers announced increases of 3 cents per pound as of October 1.

Bisphenol-A pricing is described as flat, but BPA is also said to be in relatively short supply. In the opinion of one producer, this indicates the presence of upward pressure on pricing.

Domestic demand for epoxy resins has been up this year in the housing related markets. Adhesive and bonding segments rose 8.3 percent through June of this year, compared to 1985 levels, and demand in flooring and paving moved up by 11.7 percent over the same period of time.

Also seeing a pick-up in demand were the electrical end-use markets. This area was in very bad shape last year; while not completely turned around, this segment is said to be healthier this year than last.

US producers are expecting their export markets to pick up in the near future. They are currently exporting a wide range of products, most of them being specialty epoxy grades. Commodities are also said to figure into the export market.

PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

CHANGES/UP
None

CHANGES/DOWN
None

COATINGS INDEX

The Coatings & Plastics index reflects the prices of 13 representative materials in this sector and the quantity of each produced in 1985.

Nov. 21, 1986	306.4
Nov. 14, 1986	306.4
Nov. 24, 1986	306.4
Nov. 22, 1985	306.4

Chemical Prices Start on Page 28

PLASTICS MATERIALS

STYRENE ACRYLATE POLYMERS — The Resin & Specialty Chemical Division of National Starch & Chemical Corporation has announced a price increase for "Nacrylic" styrene acrylate polymer emulsions. The price will be raised by 5 percent, and is to be effective December 15.

A sample change is for "Nacrylic 3730" which will be raised from $53.50 to $56.00 per hundredweight, in tank truck quantities.

MISCELLANEOUS

TALL OIL ROSIN — Union Camp Corporation has announced that it is increasing its pricing on tall oil rosin by 1c. per pound. Sample price changes include Unitol NCY, raised from 24c. to 25c. per pound, and Unitol ROS, raised from 26c. to 27c. per pound. These prices are for rosin in bulk quantities, f.o.b. Savannah, GA.

A company spokesman says that the price increases, effective November 21, were made to bring the company's prices into line with the world market value for tall oil rosin.

This latest move follows an earlier 1c. per pound increase in Union Camp's tall oil rosin prices, which were made effective September 12.

COATING & PIGMENT EXPORTS: SEPTEMBER

BUREAU OF CENSUS FIGURES ON THE KEY PAINT MATERIALS.

		SEPTEMBER '86 QUANTITY	SEPTEMBER '86 $ VALUE	AUGUST '86 QUANTITY	AUGUST '86 $ VALUE
Antimony compounds (NSPF)	lbs.	97,476	156,553	82,280	105,450
Carbon black, including thermal	lbs.	9,155,898	5,942,056	8,797,344	4,505,826
Chromium pigments (1)	lbs.	522,525	663,036	379,444	566,769
Colors, lakes and toners (Cyclic):					
Concentrated dispersions	lbs.	258,510	994,602	223,644	704,192
Yellow	lbs.	109,030	284,867	141,788	364,672
Red	lbs.	60,719	522,064	64,901	935,632
Violet	lbs.	4,194	66,416	25,552	379,293
Blue	lbs.	489,091	1,956,630	371,958	1,382,369
NSPF	lbs.	777,638	2,797,191	828,969	3,286,340
Prepared paint and varnish dryers	lbs.	791,455	621,114	358,059	374,670
Prepared solvents & thinners	lbs.	2,241,893	1,583,289	4,025,746	2,666,973
Iron oxides, nat., syn.	lbs.	4,607,657	2,768,731	3,874,996	2,907,724
Lead oxides	lbs.	12,201	3,608	57,353	11,356
Phthalate esters: Dioctyl phthalate	lbs.	797,963	247,351	602,962	170,525
Other phthalates	lbs.	51,722,201	6,361,639	34,405,334	3,642,597
Titanium dioxide	lbs.	20,435,838	14,753,766	19,461,400	13,260,014
Zinc oxides	lbs.	73,593	46,562	63,633	49,026
Zirconium oxide	lbs.	95,926	238,058	571,214	426,224

(1) Includes mixtures

PERFUMES & FLAVORINGS

Benzyl Acetate Imports Rise; Prices, Production Are Down

Benzyl acetate imports have risen steadily in the last three months as competition for the US market has tightened dramatically. Prices for the material have been driven down by this market climate, according to industry sources, to the point where some US producers have reportedly stopped production.

Prices have fallen from $1.25 to $1.30 per pound to below $1 per pound. "Large shipments have come in from Europe at $1 per pound duty paid," says an importer. The international market is trading at even lower levels, he says, as low as 50c. per pound for some transactions.

Underlining the extremely low pricing levels of benzyl acetate is one of the most exorbitant duties in the perfuming industry. The duty in 1986 is 34.1 percent of product value; in 1987 it will be 30.6 percent. Despite this substantial impediment, European producers are still able to market their benzyl acetate successfully in the US.

The exception to this rule is Mexico which, because of its GSP status, exports benzyl acetate to the US duty free. Through September, 1986 Mexico accounted for approximately 45 percent of the total US imports with 496,877 pounds. "Mexican material has a considerable advantage over other imports," says an aroma chemicals dealer, "primarily because of the duty."

Total imports from January through September, 1986 were 1,115,399 pounds, well ahead of the levels recorded during the same period last year: 911,758 pounds.

BENZYL ACETATE SUPPLIERS

Other major exporters of benzyl acetate to the US include Great Britain, about 20 percent, China, 18 percent, and Italy and Spain with 8 and 6 percent respectively.

Industry sources emphasize several factors as causing the relative flood of material and resultant price declines. The Italian material, only entering the market this year as of August yet commanding a larger and larger segment, is said to be offered at very low prices: "The Italian material is at such low prices," says one aroma chemicals broker, "that it's putting a crunch on the market."

Another aroma chemicals broker attributes the market climate to all European points of origin, stressing that their competition spilled over into the US market: "One of the major responses to the dollar's decline since mid-1985 was that the Europeans came in and tried to dominate the US market."

This same broker sees the Chinese influence on the benzyl acetate market, though now dwindling due to the lower prices offered from Europe, as important in driving the market to its present state. "China sought US dollars, hard currency, and they priced their product accordingly," he says.

An aroma chemicals importer observes that this situation is no longer the case: "The Chinese have been trying very hard to sell benzyl acetate but find themselves priced out of the market by the European competition." He adds that the Chinese material can be less attractive than other products because of the repacking often involved; the transferrance from poor quality drums to standard ones adds a 6 or 7c. per pound cost to the material.

Sources are in agreement concerning end-uses and current inventories. "Demand is not up," says one source, "and no new end-uses are known." An importer concurs: "Because the price is so low it has tempted people to bring in large amounts, but it's more stockpiling of inventories than anything else."

One result of this market climate has been to seriously reduce US production of benzyl acetate. A market analyst notes "the prices on the international market make it unattractive to produce in the US." An indicator of this is Monsanto's discontinuance of production and sale of operations earlier this year to Harrman & Reimer (CMR 2/10/86).

ESSENTIAL OILS

GERANIUM OIL — Shipping prices for geranium oil softened last week as a repercussion of the Egyptian crop hitting the market. Both spot and shipping prices first felt the effects of the larger Egyptian yield a month ago (CMR 10/27/86 p. 37) and now the competition between Egyptian and Chinese suppliers is sharpening.

Egyptian geranium oil fell a dollar from $44.50 per kilo f.o.b. New York to $43.50 per kilo same basis. The Chinese material also decreased a dollar from $45.50 per kilo cost and freight New York to $44.50 same basis.

One essential oils dealer maintains that the softer pricing is due solely to the increased availability of material effected by the Egyptian harvest. "When there is more material available," he says, "growers and sellers will let it go for lower prices."

Another essential oils dealer cites the willingness of the Chinese producers to cut prices in order to obtain US dollars, or other hard currency: "The Chinese will cut prices to get the business, they're anxious to get dollars so have been really lowering their prices."

SEEDS AND SPICES

PEPPER — Black pepper spot prices hit a high for 1986 last week. Malabar, Brazilian and Lampong varieties were quoted at $2.35 to $2.37 per pound, an increase of about 15c. per pound. The previous 1986 high was in mid-October when spot prices reached $2.25 to $2.30 per pound.

White Muntok has been firming less erratically than the black varities due to steadier market demand. White hit a year-high last week when spot prices exceeded the $3.05 per pound level reached in mid-October.

One spice broker says the points of origin are behind the high pepper prices: "Source markets have been raising prices steadily." Supply in the near future, may cause problems because the Indian crop is expected to be smaller than last year's bumper crop. "The crop estimates range around 70 percent of last year's yield. This will have a substantial impact on international markets because roughly half of all the world pepper grown or export comes from India."

Contributing to this anticipated shortfall of material, he adds, are rumours that consistent rains will delay the Indian harvest.

PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

CHANGES/UP

Allspice, Guatemalan, 5c. per lb.
Cinnamic aldehyde, 5c. per lb.
Citronella oil, 10-20c. per kilo
Cumin seed, Iranian, 4c. per lb.
Laurel leaves, Turkish semi-select, 26c. per lb.
Mace, Siauw, 10c. per lb.
Ocotea cymbarum oil, 10c. per lb.
Pepper, black, 14-16c. per lb.
Pepper, white, 5c. per lb.
Rosemary, 2c. per lb.

CHANGES/DOWN

Basil leaves, Egyptian recleaned, 4c. per lb.
Caraway seed, 1-2c. per lb.
Cassia, Indonesian futures, 1-5c. per lb.
Geranium oil, $1 per kilo
Ginger root, Chinese whole, 2-6c. per lb.
Peppermint, Egyptian whole, 25c. per lb.
Peppermint oil, Chinese 50%, 10c. per kilo

PERFUMES INDEX

The Perfumes & Flavorings Index reflects the prices of 11 representative materials in this sector and the quantity of each supplied in 1985.

Nov. 21, 1986	71.09
Nov. 14, 1986	71.00
Oct. 17, 1986	71.00
Nov. 22, 1985	71.00

Chemical Prices Start on Page 28

CHEMICAL IMPORTS

US imports of chemicals and related materials are reported in this section by CPI material. Listings include consignee where possible, container, net weight, name of vessel (in parenthesis), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A-B

ACID AMINO UNDECANOIC 60 bbg (125575 lbs) (Sea Land Adventur) Algeciras, 10/21.
ACRYLONITRILE BUTADIENE RUBBER Alba Fwdg 486 bls (39246 lbs) (New York Maru) Kobe, 10/15.
AGAR AGAR Alltransport 20 dms (2425 lbs) (American Aquarius) Rotterdam, 10/23.
ALUMINUM OXIDE Treibacher 40 plt (157761 lbs) (Dart Americana) Bremerhaven, 10/23.
ALUMINUM PASTE Landers Segal Color 145 dms (38832 lbs) (Bar Zan) Leghorn, 10/23.
ANISE SEED Schiff Food Products 240 bgs (26455 lbs) (Bar Zan) Valencia, 10/23.
ANTIMONY SULFIDE Utl Lines 80 bgs (9259 lbs) (Ever Loading) Hamburg, 10/20.
ANTIMONY TRIOXIDE General Electric 680 bgs (38228 lbs) (American Californ) Hong Kong, 10/21.
Minmetals 1440 bgs (80954 lbs) (American Californ) Hong Kong, 10/21.
ASCORBIC ACID Gyma Laboratories 200 dms (24251 lbs) (Tuhobic) Rijeka, 10/19.
BARIUM CARBONATE 10 pkg (22222 lbs) (New York Maru) Tokyo, 10/15.
BARIUM CHLORIDE Amalgamated Metal 680 bgs (37778 lbs) (Lars Maersk) Hong Kong, 10/10.
Kali Chemie 20 bgs (0 lbs) (American Resolute) Leghorn, 10/21.
BARIUM HYDROXIDE Kali Chemie 680 bgs (0 lbs) (American Resolute) Leghorn, 10/21.
BARIUM HYDROXIDE MONOHYDRATE Ore & Chemical 700 bgs (39700 lbs) (Tadeusz Kosciuszk) Rotterdam, 10/21.
BARIUM NITRATE ICD Group 340 dms (39727 lbs) (American Californ) Hong Kong, 10/21.
BENZYL BENZOATE Rhone Poulenc 30 dms (14749 lbs) (Netuno) Santos, 10/18.
BENZYL CHLORIDE MCI 40 dms (15432 lbs) (American Aquarius) Harwich, 10/23.
BENZYL CYANIDE Inter Maritime Fwdg 1 tnk (43210 lbs) (Ever Loading) Antwerp, 10/20.
BOTIN Sumitomo of America 40 dms (2557 lbs) (New York Maru) Kobe, 10/15.
BLACK PEPPER Ludwig Mueller 360 bgs (40920 lbs) (Willem Reefer) Paramaribo, 10/20.
Transmar Commodity Group 280 bgs (31017 lbs) (Willem Reefer) Paramaribo, 10/20.
BLANC FIXE Ore & Chemical 800 bgs (45609 lbs) (Ever Loading) Antwerp, 10/20.

C-F

CADMIUM PIGMENT Whittaker Clark & Daniels 32 dms (1975 lbs) (Dart Americana) Felixstowe, 10/23.
CALCIUM SACCHARIN POWDER Mitsubishi Intl 50 dms (5401 lbs) (New York Maru) Nagoya, 10/15.
CALCIUM STEARATE Total Port Clearance 120 bgs (5437 lbs) (Tadeusz Kosciuszk) Rotterdam, 10/21.
CAPRIC ACID Robeco Chemicals 12 dms (5476 lbs) (Atlantic Song) Rotterdam, 10/22.
CAPROIC ACID 5 dms (2271 lbs) (Lars Maersk) Tokyo, 10/10.
CAPROLACTONE MONOMER 80 dms (39930 lbs) (Hanjin Keelung) Kobe, 10/23.
CARAWAY OIL Ermark 12 bls (1534 lbs) (Tadeusz Kosciuszk) Bremerhaven, 10/21.
CARDAMOM Intl Trade House 10 bgs (1124 lbs) (Bar Zan) Dubai, 10/23.
CASTOR OIL EXTRA PALE Polyesther 80 dms (33863 lbs) (New York Maru) Nagoya, 10/15.
CELERY SEED OIL Bartel Shpg 2 dms (254 lbs) (New York Maru) Nagoya, 10/15.
CHINESE MENTHOL CRYSTALS FDL 40 dms (2601 lbs) (Americana Aquarius) Rotterdam, 10/23.
CHROMIC ACID FLAKES White Cross Laboratories 350 dms (41436 lbs) (Susak) Genoa, 10/19.
CITRIC ACID Omnitrans 390 bgs (40007 lbs) (Tuhobic) Koper, 10/19.
18 bbg (40875 lbs) (Ever Loading) Antewrp 10/20.
1188 bgs (122223 lbs) (Ever Loading) Antwerp, 10/20.
GPI 450 bgs (45000 lbs) (Zim Genova) Haifa, 10/22.
CLOVELEAF OIL 20 dms (8818 lbs) (Ming Galaxy) Jakarta, 10/23.
COCONUT OIL Kadiatu Kamra 1 crt (551 lbs) (Takoradi) Freetown, 10/22.
4 bks (1456206 lbs) (Stolt Jade) Davao, 10/23.
1 bks (112435 lbs) (Stolt Jade) Legaspi, 10/12.
3 bks (337304 lbs) (Stolt Jade) Roxas, 10/12.
COD LIVER OIL Daniel F Young 6 dms (2778 lbs) (Atlantic Song) Rotterdam, 10/22.
CYANURIC CHLORIDE Degussa 360 dms (44683 lbs) (Dart Americana) Antwerp, 10/23.
DEXTRINE 800 bgs (44533 lbs) (Ever Loading) Rotterdam, 10/20.
DEXTROSE MONOHYDRATE Roquette 1152 bgs (116090 lbs) (Atlantic Song) LeHavre, 10/22.
DICYANDIAMIDE 1220 bgs (86748 lbs) (Heide) Bremerhaven, 10/19.
DIETHYL SULFATE Leyden Customs Expediters 134 dms (74445 lbs) (Ming Galaxy) Yokohama, 10/23.
ETHYLENEDIAMINE 1 tnk (39815 lbs) (Heide) Rotterdam, 10/19.
FERRIC AMMON OXALATE Prochimie Intl 125 pkg (39242 lbs) (Ever Loading) Hamburg, 10/20.

G-I

GUAIFENESIN American Pacific Lines 24 dms (0 lbs) (Hanjin Keelung) Keelung, 10/23.
GUAR GUM Polypro Intl 3180 bgs (161997 lbs) (Bar Zan) Dubai, 10/23.
GUM KARAYA Celanese 260 bgs (29405 lbs) (Bar Zan) Dubai, 10/23.
Meer 200 bgs (36360 lbs) (Bar Zan) Dubai, 10/23.
Celanese 340 bgs (38453 lbs) (Bar Zan) Dubai, 10/23.
Celanese 200 bgs (22619 lbs) (Bar Zan) Dubai, 10/23.
Colony Imports & Exports 198 bgs (36230 lbs) (Bar Zan) Dubai, 10/23.
Diamond Shamrock 438 bgs (6112 lbs) (Bar Zan) Dubai, 10/23.
GUM ROSIN Pine Derivatives Marketing 630 bgs (34722 lbs) (Dart Americana) Antewrp, 10/23.
GUM TRAGACANTH Mory Vandergrift 23 cs (0 lbs) (Heide) Hamburg, 10/19.
HYDROGEN PEROXIDE FMC 216 dms (30022 lbs) (Ever Loading) LeHavre, 10/20.
HYDROQUINONE Saratogo Fwdg 600 bgs (33863 lbs) (Lars Maersk) Hong Kong, 10/10.
Mitsui 720 bgs (41023 lbs) (Ming Galaxy) Kobe, 10/23.
176 dms (44621 lbs) (Ming Galaxy) Kobe, 10/23.
IRON BLUE PIGMENT Dainichiseika Color & Chemic 1200 bgs (62170 lbs) (Ming Galaxy) Yokohama, 10/23.
ISOPHTHALIC ACID Glidden Coatings & Resins 60 bbg (121892 lbs) (Ever Summit) Leghorn, 10/22.

L-N

L CARVONE American Shpg 30 dms (13228 lbs) (American Astronau) Santos, 10/23.
L CYSTEINE HCL ANH Meiko Warehousing 606 pkg (36257 lbs) (New York Mau) Kobe, 10/15.
LEMON OIL 30 dms (12668 lbs) (San Martin I) Montevideo, 10/20.
Max Van Pels 27 bls (3036 lbs) (Tuhobic) Bar, 10/19.
MAGNESIUM CARBONATE Ameribrom 5 pkg (0 lbs) (American Resolute) Haifa, 10/21.
Serra Intl 10 plt (22311 lbs) (Heide) Hamburg, 10/19.
MAGNESIUM CHLORIDE Potash Import & Chemial 420 bgs (42939 lbs) (Atlantic Song) Bremerhaven, 10/22.
MAGNESIUM OXIDE Roussel Pharmaceutical Produ 662 dms (78810 lbs) (Ming Galaxy) Kobe, 10/23.
MALIC ACID FOOD GRADE Mitrans 770 bgs (39043 lbs) (Ming Galaxy) Kobe, 10/23.
MARJORAM Ludwig Mueller 475 bgs (19897 lbs) (American Resolute) Alexandria, 10/21.
MARJORAM LEAVES McCormick 600 bgs (16535 lbs) (American Resolute) Alexandria, 10/21.
MENTHOL CRYSTALS Sarcom 40 dms (4608 lbs) (American Michigan) Santos, 10/17.
METHYL CELLULOSE Mitrans 180 dms (22222 lbs) (Ming Galaxy) Yokohama, 10/23.
METHYL PARABEN 193 dms (22976 lbs) (Zim Genova) Haifa, 10/22.
METHYLENE DIANILINE Mitsui 20 dms (2381 lbs) (Laust Maersk) Kobe, 10/23.
Nissho Iwai American 2 dms (247 lbs) (Laust Maersk) Kobe, 10/23.
MONOCHLORACETIC ACID Robeco Chemicals 1 tnk (42857 lbs) (Atlantic Song) Rotterdam, 10/22.
MONOPOTASSIUM PHOSPHATE Silvey Shpg 400 bgs (41235 lbs) (Ever Loading) Antwerp, 10/20.
MONOSODIUM GLUTAMATE Ajinomoto 200 ctn (7937 lbs) (New York Maru) Tokyo, 10/15.
720 dms (77999 lbs) (Marianne Schulte) Santos, 10/19.
5250 bgs (265974 lbs) (Ever Loading) LeHavre, 10/20.

O-P

O NITROBENZALDEHYDE Nagase America 37 dms (2447 lbs) (Lars Maersk) Tokyo, 10/10.
ORANGE OIL 125 dms (52635 lbs) (Netuno) Santos, 10/18.
ORANGE OIL PERA Ungerer 60 dms (32805 lbs) (American Astronau) Santos, 10/23.
ORTHO PARA TOLUENE SULFONAMIDE Speedway Intl 700 bgs (38801 lbs) (Hanjin Keelung) Busan, 10/23.
P TOLUENE SULFONYL CHLORIDE Rit Chemical 42 dms (0 lbs) (Ming Galaxy) Yokohama, 10/23.
PARAFFIN PETROLEUM WAX Astro Wax 16 plt (40874 lbs) (American Aquarius) Harwich, 10/23.
PARAFORMALDEHYDE Colt Chemical 34 bbg (50971 lbs) (Sea Land Adventur) Algeciras, 10/21.
T R America Chemicals 720 bgs (41032 lbs) (Sea Land Adventur) Algecira, 10/21.
PENICILLIN Lassen Intl Fwdrs 40 dms (5029 lbs) (Dart Americana) Bremerhaven, 10/23.
PHENOXY ACETIC ACID 792 bgs (45939 lbs) (Tadeusz Kosciuszk) Bremerhaven, 10/21.
POLYCARBONATE RESIN Mitsubishi Intl 620 bgs (34991 lbs) (Ming Galaxy) Kobe, 10/23.
POLYESTER RESIN RESAPOL 79 bbg (106000 lbs) (American Astronau) Santos, 10/23.
POLYSTYRENE RESIN Nagase America 660 ctn (22563 lbs) (New York Maru) Tokyo, 10/15.
POLYTETRAFLUOROETHYLENE Sumitomo of America 72 plt (38084 lbs) (New York Maru) Kobe, 10/15.
POLYVINYL ALCOHOL Marubeni America 420 bgs (22501 lbs) (Laust Maersk) Kobe, 10/23.
Mitsubishi Intl 455 bgs (20459 lbs) (Laust Maersk) Kobe, 10/23.
POTASH CAUSTIC Texasgulf 720 bgs (81086 lbs) (American Aquarius) Rotterdam, 10/23.
POTASSIUM BICARBONATE Kay Fries 400 bgs (11058 lbs) (Ever Loading) Antwerp, 10/20.
258 pkg (82260 lbs) (Tadeusz Kosciuszk) Bremerhaven, 10/21.
POTASSIUM BROMATE Ameribrom 164 dms (0 lbs) (American Resolute) Haifa, 10/21.
POTASSIUM CARBONATE Kay Fries 400 bgs (41058 lbs) (Ever Loading) Antwerp, 10/20.
POTASSIUM CHLORATE T R America Chemicals 160 dms (47267 lbs) (Sea Land Adventur) Algeciras, 10/21.
POTASSIUM CHLORIDE Potash Import & Chemical 720 pkg (40000 lbs) (Ever Loading) Hamburg, 10/20.
POTASSIUM CYANIDE Montedison 100 dms (0 lbs) (American Resolute) Leghorn, 10/21.
POTASSIUM FERROCYANIDE Degussa 720 bgs (39859 lbs) (Dart Americana) Antwerp, 10/23.
POTASSIUM FLUOROTITANATE Mitrans 680 bgs (38228 lbs) (New York Maru) Tokyo, 10/15.
POTASSIUM PERMANGANATE S R Teimouri 140 pkg (42829 lbs) (American Aquarius) Rotterdam, 10/23.
POTASSIUM STEARATE Total Port Clearance 40 bgs (2275 lbs) (Tadeusz Kosciuszk) Rotterdam, 10/21.
PYRAZOLIDONE S Bemo Shpg 10 dms (1235 lbs) (Ming Galaxy) Kobe, 10/23.
PYRIDOXINE HYDROCHLORIDE Gyma Laboratories 40 dms (2601 lbs) (Tuhobic) Rijeka, 10/19.

S-T

SALICYLIC ACID Rhone Poulenc 80 cks (21076 lbs) (Netuno) Santos, 10/18.
SESAME OIL Yi Cheng Trdg 900 ctn (37302 lbs) (Ming Galaxy) Keelung, 10/23.
SODIUM BOROHYDRIDE Sativa Chemicals 72 dms (45873 lbs) (Heide) Bremerhaven, 10/19.
SODIUM CHLORITE 1 con (39308 lbs) (Ever Summit) Fos, 10/22.
SODIUM FLUORIDE Mitrans 200 ctn (11188 lbs) (New York Maru) Kobe, 10/15.
SODIUM FORMALDEHYDE SULFOXYLATE Leyden Customs Expediters 132 dms (34921 lbs) (Ming Galaxy) Kobe, 10/23.
SODIUM HYDROXIDE Mallinckrodt 336 dms (39185 lbs) (Dart Americana) Bremerhaven, 10/23.
SODIUM PERBORATE TETRAHYDRATE Degussa 420 bgs (42463 lbs) (Dart Americana) Antwerp, 10/23.
SODIUM PERSULFATE Mitsubishi Intl 640 bgs (38473 lbs) (Ming Galaxy) Yokohama, 10/23.
SODIUM SULPHITE ANHYDROUS Westco Chemicals 400 bgs (39683 lbs) (American Aquarius) Harwich, 10/23.
SODIUM TRIPOLYPHOSPHATE 144 bbg (183378 lbs) (Zim Genova) Haifa, 10/22.
SAE 432 bgs (44467 lbs) (Ever Summit) Leghorn, 10/22.
SODIUM TRIPOLYPHOSPHATE GRANULAR Browning Chemical 932 bgs (95583 lbs) (Bar Zan) Leghorn, 10/23.
SODIUM TRIPOLYPHOSPHATE HEAVY GR Boening Chemical 400 bgs (41711 lbs) (Heide) Hamburg, 10/19.
SORBITOL E M Ind 720 ctn (87655 lbs) (Atlantic Song) Bremerhaven, 10/22.
STEARIC ACID Total Port Clearance 240 bgs (13736 lbs) (Taudesz Kosciuszk) Rotterdam, 10/21.
SULFONIC ACID Order 77 dms (38195 lbs) (Zim Genova) Haifa, 10/22.
SULFOSALICYLIC ACID TECH Panalpina 48 dms (5714 lbs) (American Californ) Kobe, 10/21.
TARTAR EMETIC D Hauser 200 dms (5732 lbs) (New York Maru) Kobe, 10/15.
TARTARIC ACID GRANULAR Monson Chemicals 400 bgs (45327 lbs) (American Resolute) Barcelona, 10/21.
TERPINEOL NORMAL T R America Chemicals 61 dms (29121 lbs) (Bar Zan) Fos, 10/23.
TETRABUTYL AMMONIUM BORMIDE Leyden Customs Expediters 20 dms (2668 lbs) (American Resolute) Naples, 10/21.
THIOUREA 680 bgs (37703 lbs) (Laust Maersk) Hong Kong, 10/23.
TITANIUM DIOXIDE D N Lukens Chemical 880 bgs (44137 lbs) (Sea Land Adventur) Algeciras, 10/21.
Lukens Chemical 880 bgs (44136 lbs) (American Resolute) Cadiz, 10/21.
S R Teimouri 880 bgs (44137 lbs) (Sea Land Adventur) Algecrias, 10/21.
Sacco Pigments & Solvents 800 bgs (41502 lbs) (American Aquarius) Rotterdam, 10/23.
Superior Materials 2400 bgs (120372 lbs) (Sea Land Adventur) Algeciras, 10/21.
Kemira 2240 bgs (118980 lbs) (Tadeusz Kosciuszk) Bremerhaven, 10/21.
SCM 3520 bgs (90906 lbs) (American Aquarius) Felixstowe, 10/23.
Shiavone Bonomo 5 pkg (3986 lbs) (Laust Maersk) Kobe, 10/23.
TRIMETHYL HEXAMETHYLENE DIAMINE Nuodex 80 dms (35538 lbs) (Tadousz Kosciuszk) Rotterdam, 10/21.
TRIMETHYLALUMINIUM CYLINDERS Morton Thiokol 1 cs (22 lbs) (New York Maru) Tokyo, 10/1.

U-Z

ULTRAMARINE PIGMENT Whittaker Clark & Daniels 680 bgs (39015 lbs) (Dart Americana) Felixstowe, 10/23.
UREA FORMALDEHYDE MOULDING COMP 154 mix (39749 lbs) (Zim Genova) Haifa, 10/22.
UREA FORMALDEHYDE MOULDING POWDE 1640 bgs (90368 lbs) (Zim Genova) Haifa, 10/22.
UREA MELAMINE FORMALDEHYDE MOULD 1553 mix (112378 lbs) (Zim Genova) Haifa, 10/22
ZINC FORMALDEHYDE SULFOXYLATE Diamond Shamrock 145 dms (38199 lbs) (Ever Loading) Antwerp, 10/20.
ZINC SULFATE HEPTAHYDRATE United Mineral & Chemical 350 bgs (39630 lbs) (Heide) Rotterdam, 10/19.

CHEMICAL PRICES

WEEK ENDING NOVEMBER 21, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bid and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

A

B

ABBREVIATIONS

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE

NOTE: A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the unit-ton price shown in Chemical Marketing Reporter gives the price of 2,000 pounds of the material.

C

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Chlorinated paraffin, Zone 2 prices are 1c. per lb. higher and Zone 3 prices are 2c per lb. higher and t.l. drum prices are 5c per lb. higher		
Chlorinated rubber, 5, 10, 20 cps., bgs, t.l., divd. . . . lb.	1.66	-
40 cps, bgs., t.l., divd. . . . lb.	1.92	-
125 cps., bgs., t.l., divd. . . . lb.	2.60	-
300 cps., bgs., t.l., divd. . . . lb.	2.75	-
Chlorine, tanks single units works, f.o.b., frt. equald. . . . ton	195.00	200.00
Chloroacetic acid, mono, high purity, flake, 99% bulk f.o.b. works. . . . lb.	.56	-
2-Chloro-4-aminotoluene, tech., liq., dms., c.l., t.l., f.o.b. works . lb.	1.88	-
o-Chloroaniline, liquid, dms., c.l., f.o.b. works. . . . lb.	1.63	-
tanks, same basis. . . . lb.	1.55	-
p-Chloroaniline, solid, c.l., t.l., f.o.b. lb.	1.70	-
flake, dms., c.l., same basis. . . . lb.	2.00	-
o-Chlorobenzaldehyde, dms., t.l., works. . . . lb.	2.45	-
p-Chlorobenzaldehyde, dms., 2,000 lbs. or more, works. . . . lb.	3.84	3.85
o-Chlorobenzoic acid, dms. t.l.l. wks. . lb.	3.90	-
p-Chlorobenzoic acid, dms., 500-lb. lots or more, works. . . . lb.	1.69	2.25
Chloroform, tech. tanks, distr. divd. . . lb.	.34½	-
tech., consumers, tanks, divd. . . lb.	.34½	-
NF tanks, min., consumer, 4,000 gals. divd. . . . lb.	.35½	-
2-Chloro-4-nitroaniline, paste, commodity basis, dms., t.l., f.o.b. . . . lb.	3.06	-
powd., same basis. . . . lb.	3.15	-
4-Chloro-2-nitroaniline, paste, 172.5 mol. wt., commodity basis, dms., t.l., f.o.b. . . . lb.	2.25	-
powd., same basis. . . . lb.	2.70	-
o-Chlorophenol, dms., c.l., frt. equald. . . . lb.	2.00	2.40
p-Chlorophenol, dms., c.l., frt. equald. . . . lb.	1.25	1.70
Chloropicrin, coml., 1,500-lb. cyls., t.l., f.o.b. works. . . . lb.	1.25	-
Chlorosulfonic acid, tanks, frt. equald. . . . lb.	.18½	-
p-Chlorotoluene, tech., tanks, works. . . . lb.	1.00	-
Cholecalciferol, dry, 40,000,000 units per gram, kilo lots . . . . gm.	24.00	-
Choline bitartrate, cryst., 98% min., 50 kilo dms., f.o.b. Springfield, Mo. . . . kilo.	6.90	-
Choline chloride, feed grade, 70% aqueous, t.c., t.t., divd. E of Rockies . . . . lb.	.28	-
60% dry supplement. . . . lb.	.39	-
Choline chloride, 60% dry supplement, bulk hopper cars . . . . lb.	.39	-
bgs., 50,000 lbs. min. . . . lb.	.40	-
Choline chloride, pharmaceutical, 50 kilo, lots, f.o.b. Springfield, Mo. . . . kilo.	5.00	-
Choline dihydrogen citrate, 98% min., 50 kilo lots, f.o.b. Springfield, Mo. . . . kilo.	6.00	-
Chrome green, CP extra light, bgs., divd. E. of Rockies. . . . lb.	1.68	-
light, bgs., same basis. . . . lb.	1.70	-
medium, bgs., same basis. . . . lb.	1.72	-
extra deep, CP., same basis. . . . lb.	1.74	-
Chrome orange, CP, bgs., divd. E. of Rockies. . . . lb.	.83	.89
Chrome yellow CP bbls., divd. E. of Rockies. . . . lb.	1.09	1.18
Chromic acid, 99¾%, flake dms., c.l., frt. equald. . . . lb.	1.18	-
grd., same basis. . . . lb.	1.25	-
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. . lb.	.10	-
Chromium fluoride, dms., t.l., works. . . . lb.	.81	-
Chromium nitrate, dms., t.l., f.o.b. . lb.	1.45	-
10% metal soln., 500-lb. dms. same basis . . . . lb.	.74	.86
Chromium oxide, hydrated, 50-lb. bgs., c.l. . . . lb.	5.50	-
pure, bgs., c.l. . . . lb.	1.90	2.00
Cinnamic aldehyde, cns., dms. . . . lb.	1.85	1.95
Cinnamic alcohol, 25-lb. cns. . . . lb.	4.50	-
Cinnamon, H2. . . . lb.	.95	1.00
Cinnamon bark oil, bots. . . . lb.	105.00	110.00
Cinnamon leaf oil, dms. . . . lb.	2.75	-
Citral, nat., dms. . . . lb.	5.60	6.65
syn., 55-gal. dms. f.o.b. . . . lb.	3.18	-
Citric acid, USP, hydrous, gran., 250-lb. dms., t.l. . . . lb.	1.19	-
Citric acid, USP, anhyd., gran. 250-lb. dms., t.l., del. . . . lb.	.86	-
Citric acid anhyde, powder 5c. higher		
Citronella oil, Java, dms. . . . lb.	2.60	-
China, dms. . . . lb.	2.60	-
Citronellal, 25-lb cans . . . . lb.	3.85	7.40
Citronellol drums, f.o.b. . . . lb.	3.68	-
Citronellyl acetate, dms. . . . lb.	5.50	6.50
Citronellyl formate, 25-lb. cns. . . . lb.	6.85	-
Civet, artif., bots. . . . lb.	20.00	-
nat. . . . lb.	400.00	-
Clay ball, dom. air floated, bgs., c.l., Tenn. . . . ton	49.00	-
dom., crushed, moisture-repellent, bulk, c.l., Tenn. . . . ton	24.00	-
Clay China (see Kaolin).		
Cleaners, naphtha, 140° flash tanks., New Jersey or New York, divd. . . . gal.	1.40	-
Clove leaf oil Indonesian, reg. dms. kilo	3.15	-
Madagascar, reg. . . . kilo	3.40	-
Clove bud oil. . . . kilo	25.00	26.00
Cloves, Brazil . . . . lb.	2.30	-
Zanzibar. . . . lb.	2.30	-
Madagascar . . . . lb.	2.30	-
CMC, technical, 98% minimum, low or medium vis., bgs., 24,000 lbs., f.o.b. Hopewell, Va., 100% basis . . . . lb.	1.25	-
detergent makers, f.o.b. manufacturing point. . . . lb.	.84	-
CMC, purif., high vis., (see Cellulose gum).		
Coaltar pitch, indust., liq., works . ton.	250.00	255.00
roofing, 140-155, Federal specification RP-381 Type 1, bulk works. . . . ton	350.00	-
Cobalt acetate, dms., t.l., frt. alld. . . lb.	3.61	4.25
Cobalt carbonate, powd., dms., frt. alld. . . . lb.	6.61	8.16
Cobalt chloride, dms., 5,000 lbs. or more, ft. equald. . . . lb.	4.15	-
Cobalt hydrate, dms., t.l., frt. alld. . . lb.	8.20	10.55
Cobalt metal, 99.5-99.9%, 250-kilo. dms., f.o.b. NY, Chicago. . lb.	11.70	-
Cobalt naphthenate, liq., 6% Co., dms., divd. . . . lb.	2.06	-
Cobalt nitrate, dms., t.l., frt. alld. . . lb.	2.74	3.45
Cobalt oxide, imp., black, 72-73% Co. . . . lb.	9.51	-
Cobalt oxide, imp., 70-71% Co. . . . lb.	9.76	-
Cobalt phosphate powd. 32.1% Co., dms., divd. . . . lb.	1.35	-
Cobalt resinate fused, 3% Co., dms. . . . lb.	.38½	-
Cobalt sulfate, cryst., bgs., 10,000 lbs. or more, frt. alld. E. . . . lb.	2.81	3.54
monohydrate, dms., frt. alld. . . . lb.	4.56	6.02
Cobalt tallate, 6% Co., dms., divd. . lb.	2.16	-
Cocillana bark, bls. . . . lb.	.40	.45
Cocoa butter, spot. . . . lb.	2.14	-
Coconut oil (See Oils, Fats & Waxes market report.).		
Coconut oil acids, distilled, t.c., f.o.b. . . . lb.	.52	.58
double distilled, same basis . . . lb.	.54	.63
Cod oil, f.o.b., Gloucester, Mass., bulk. . . . gal.	6.50	-
Codeine alkaloid, NF, 25-kilo lots, kilo.	900.00	-
Codeine phosphate, USP, cns., 25-kilo lots. . . . kilo	640.00	-
Codeine sulfate, NF cns., 25-kilo lots. . . . kilo	775.00	-
Codliver oil, NF, dms. . . . gal.	6.50	7.25
Copaiba balsam, dms. . . . lb.	1.50	-
Copaiba oil, cns., dms. . . . lb.	3.75	-
Copper acetate, monohydrate, cryst., tech., dms., t.l., works. . . . lb.	.71	.74
Copper bromide, (cupric) 200-lb. dms., 100,000-lbs. -per-year contracts, works. . . . lb.	1.34	-
Copper carbonate, 55% Cu, dark, dense, 50-lb. bgs., c.l., t.l., works. . . . 100 lbs.	108.30	-
light, fluffy, 50 lb. bags, c.l., t.l., works. . . . 100 lbs.	109.30	-
Copper chloride (cupric), anhyd., c.l., works. . . . lb.	.90	-
Copper cyanide, tech. dms., 24,000-lb. lots or more. . . . lb.	2.30	2.62
Copper fluoborate, (cupric), liq. conc., dms., t.l., works, frt. equald. . . . lb.	.82	-
Copper gluconate, FCC grade, 25-lb. dm., frt. equald. . . . lb.	6.60	-
Copper metal electrolytic wire bars, divd., domestic, basis. . . . lb.	.62½	-
Copper naphthenate, liq., 8% Cu., dms., frt. alld. . . . lb.	1.19	-
Copper nitrate (cupric), purif., flake, dms., t.l., works. . . . lb.	.43¼	-
Copper oleate, solid, 6% Cu. dms., works frt alld. . . . lb.	.97	-
Copper oxide, black (cupric), dms., 80,000-lb. lots, works. . . . lb.	1.21	-
red (cuprous), dms., 97%, USN Type 1, (AA), 80,000-lb. lots, works. . . . lb.	1.19	1.20
red, 90%, Type 2, same basis . . . lb.	1.15	-
Copper-8-quinolinolate, 10%, liq. emulsion, t.l., divd. . . . lb.	2.52	-
Copper sulfate, cryst., pentahydrate, 99% bgs., c.l., f.o.b. works. . . . 100 lbs.	46.45	-
CP, pentahydrate, cryst., dms., l.c.l., works. . . . 100 lbs.	60.00	-
monohydrated, 35% Cu, dms., c.l., works. . . . 100 lbs.	75.10	-
basic, bgs., c.l., works. . . . 100 lbs.	88.30	-
Coriander oil, USP, dms. . . . lb.	32.00	34.00
Coriander seed Moroccan. . . . lb.	.36	-
Rumanian . . . . lb.	.36	.37
Corn oil (See Oils, Fats & Waxes market report).		
Corn oil, crude, foots (soapstock), 95% acid; New York. . . . lb.	.13½	.14
Corn oil acid, dms. . . . lb.	.50	-
tanks. . . . lb.	.32	.40
Corn syrup 43 Be., tanks, f.o.b. works. . . . 100 lbs.	11.22	11.43
Cortisone acetate, USP, dms., 5 kilos or more . . . . gram.	.80	-
Cottonseed meal (See Oils, Fats & Waxes market report.)		
Cottonseed oil (See Oils, Fats & Waxes market report.)		
Cottonseed oil, acidulated (soap stock), acid, 95%, tanks, N.Y. . . . lb.	.13	-
Cottonseed oil acids, dist., dms. . . . lb.	.63	-
tanks . . . . lb.	.55	-
Coumarin, NF X, cryst., over 600-lb. lots. . . . lb.	6.00	6.20
Cream of tartar (see Potassium bitartrate).		
Creosote, coaltar, grade 1, tanks, f.o.b. works . . . . gal.	1.15	1.18
soln., 60/20, tanks, same basis . gal.	1.134	1.17
p-Cresidine, fused, dms., works . . . lb.	4.31	-
m-Cresol, 95-98%, dms., t.l., f.o.b. . lb.	1.71	-
tanks, same basis . . . . lb.	1.65	-
m,p-Cresol, 99%, dms., t.l., f.o.b. . . lb.	.94	-
bulk, same basis . . . . lb.	.82	-
o-Cresol, 99% pure, dms., t.l., f.o.b. lb.	.87	-
bulk, same basis . . . . lb.	.75	-
98% pure, dms., t.l., f.o.b. . . . lb.	.87	-
bulk, same basis . . . . lb.	.75	-
p-Cresol, 98%, dms., t.l., f.o.b. . . . lb.	1.22	-
bulk, same basis . . . . lb.	.95	1.15
Cresylic acid, coaltar, dom., metapara content above 25%, resin and tricresyl phosphate grades, tanks, frt. alld . . . . lb.	.58	-
Cresylic acid, dom., metapara content 25% or less, tanks, frt. alld. lb.	.58	-
Crotonic acid, 200-lb. dms., t.l., f.o.b. divd. . . . lb.	1.60	-
Cryolite syn., bulk, c.l., works . . . . ton	510.00	550.00
Cube root, powd., 5% rotenone, basis, 50-lb. bgs., t.l., works . . . . lb.	.60	-
Cumene, bulk, contract, f.o.b. . . . lb.	.14	.14
Cumin seed, Indian, bgs. . . . lb.	.95	-
Iranian, bgs . . . . lb.	.99	-
Cyanuric acid, dms., c.l., t.l. frt. equald. . . . lb.	1.16	1.37
Cyclamen aldehyde, 50% min. aldehyde content, dms. . . . lb.	4.85	-
96.5%, dms. . . . lb.	7.35	9.20
90-92%, dms. . . . lb.	7.85	-
Cyclohexane, bulk, barges, wks . . gal.	.9825	.9925
Cyclohexanol tech., tanks, f.o.b. . . lb.	.52	.66½
Cyclohexanone tech., tanks, f.o.b. works. . . . lb.	.55½	.58½
tanks, divd. . . . lb.	.565	-
Cyclohexylamine, tech., tanks, works. . . . lb.	.85	-

D

2,4-D acid, tech., 50-lb. bgs., c.l., t.l., works, frt. equald. . . . lb.	1.10	1.25
2,4-D butyl ester, tech., 55-gal. dms., c.l., t.l., works, frt. equald. . lb.	1.30	-
tanks, same basis. . . . lb.	1.25	-
2,4-D dimethylamine salt, t.c., t.t. works, frt. alld. . . . gal.	8.05	-
Decyl alcohol, mixed isomers, tanks, divd. . . . lb.	.32	-
perfume grade, dms. . . . lb.	.75	-
Defluorinated phosphate (tricalcium), feed grade, 18% P, c.l., bulk, f.o.b. works . . . . ton	195.00	228.00
Denatured alcohol, ethyl, CD18, CD19, tanks, divd. E. . . . gal.	1.87	-
NOTE: Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.		
Denatured alcohol, ethyl,		
SD2B, tanks, divd. E. . . . gal.	1.81	-
SD3A, tanks, divd. E. . . . gal.	1.76½	-
SD23A, tanks, divd. E. . . . gal.	1.86	-
SD23H, tanks, divd. E. . . . gal.	1.89	-
SD29, tanks, divd. E. . . . gal.	1.83	-
SD30, tanks, divd. E. . . . gal.	1.72½	-
SD35A, tanks, divd. E. . . . gal.	1.88½	-
Denatured alcohol, ethyl, brucine formula SD40, tanks, divd. E. . . . gal.	1.83	-
ethyl, optional formula, SD40, tanks, divd. E. . . . gal.	1.82½	-
For anhyd. alcohol on above formulas, prices are 12c. per gal. higher.		
West Coast divd. prices are the same as Eastern prices, except in Idaho, Oregon and Washington where a 5c. differential on tankcars is maintained.		
Desoxyephedrine hydrochloride (See Methamphetamine hydrochloride)		
Detergent alkylate, straight chain dodecylbenzene, tanks, barges, f.o.b. . . . lb.	.45	-
Dextrin, corn, canary dark, paper bgs., c.l., works. . . . 100 lbs.	26.04	-
white, paper bgs., c.l., works. . . . 100 lbs.	27.43	-
Dextrose, anhyd., coml., bgs., c.l., divd. New York. . . . 100 lbs.	41.10	-
USP special, 100-lb. bgs., c.l., divd. New York. . . . 100 lbs.	46.60	-
Dextrose, hydrated coml, bgs., c.l., divd. New York. . . . 100 lbs.	24.25	-
Western zone . . . . 100 lbs.	25.60	-
Diacetone alcohol, acetone free, tanks, divd. . . . lb.	.52	-
Diacetyl, flavor grade, dms. . . . lb.	9.25	15.00
Diammonium phosphate, fert. grade, min. 18% N, 46% P. bulk, c.l., f.o.b. Fla. works. . . . ton	140.00	145.00
Diammonium phosphate, feed grade, 18% N, 20% P, bulk. c.l., f.o.b. Fla. works. . . . ton	240.00	-
bgs., same basis. . . . ton	250.00	-
Diammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald. . . . 100 lbs.	52.50	-
food grade, bgs., c.l., t.l., same basis. . . . 100 lbs.	57.75	-
2,4-Di-tert-amylphenol, min. 95.5%, dms., c.l., t.l., works. . . . lb.	1.04	-
tanks, works . . . . lb.	.97	-
Diarylide yellow, OT, (yellow 14), dms., frt. alld. . . . lb.	7.00	8.00
o-Dianisidine dihydrochloride, 100%, MW 244, dms., t.l., divd. . . lb.	4.25	-
2,6-Di-tert-Butyl-p-Cresol (see Butylated hydroxytoluene)		
Dibutyl fumarate, tanks, f.o.b. works. . . . lb.	.77	.85
Dibutyl maleate tanks, f.o.b. works. lb.	.63	.64
Dibutyl phthalate tanks, works. . . . lb.	.54	.60
Dibutyl sebacate tanks, works . . . . lb.	1.72	1.89
Dibutylamine, dms., c.l., divd. . . . lb.	1.12	-
tanks, same basis. . . . lb.	1.06	-
2-5-Dichloroaniline, flake, dms., works. . . . lb.	2.00	-
fused, dms., works . . . . lb.	1.80	-
3,4-Dichloroaniline, tech. 98%, solid, dms., c.l., t.l., f.o.b. works . lb.	1.46	1.57
o-Dichlorobenzene, tech., 80%, dms., c.l., t.l., divd. . . . lb.	.52	-
tanks, same basis. . . . lb.	.45	-
98% refd., dms., c.l., same basis. . lb.	.54	-
tanks, same basis . . . . lb.	.47	-
p-Dichlorobenzene, graded, 300-lb. dms., t.l., f.o.b., frt. equald. lb.	.51	.52
tanks, liq., same basis . . . . lb.	.43	.47
2,6-Dichloro-4-nitroaniline, dms., 10,000 lbs. or more, works. lb.	3.30	-
Dichlorophenoxyacetic acid (see 2,4-D).		
Dicyclohexylamine, dms., c.l., t.l., f.o.b. . . . lb.	1.35	-
tanks, same basis . . . . lb.	1.25	-
Dicyclohexyl phthalate, bgs., c.l., t.l., divd. . . . lb.	1.25	-
Dicyclopentadiene, high-purity, 97-98%, tanks, works. . . . lb.	.35	-
Diethanolamine, tanks, frt. alld. . . . lb.	.34	.36
Diethanolamine lauryl sulfate, tanks, frt. alld. . . . lb.	.41	-
DDVP (see Dimethyl dichlorovinyl phosphate).		
Diethyl barbituric acid (see Barbital).		
Diethyl carbonate, tankwagons, f.o.b. works . . . . lb.	1.40	-
Diethyl ethanolamine, CP dms., c.l., divd. . . . lb.	1.18	-
tanks, divd. . . . lb.	1.10	-
Diethyl ethanolamine tech., 5c. per lb. lower.		
Diethyl oxalate, dms., c.l., f.o.b. works. . . . lb.	1.80	-
Diethyl phthalate, tanks, f.o.b. . . . lb.	.89	-
odorless cosmetic grades, t.l., works. . . . lb.	.97½	-
Diethyl sulfate, tanks., frt. alld. E. . . lb.	.59	-
Diethyl thiourea, dms., c.l., t.l., works. . . . lb.	2.48	-
Di-2-ethylhexyl adipate (see Dioctyl adipate).		
Diethyl toluamide, 95-97% min. meta isomer, dms., t.l., f.o.b. works. . . . lb.	2.75	-
N,N-Diethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. . . . lb.	3.18	-
tanks, same basis. . . . lb.	3.10	-
Diethylamine, dms., c.l., divd. . . . lb.	1.18	-
tanks, same basis. . . . lb.	1.02	-
N,N-Diethylaniline, dms., c.l., t.l., f.o.b. works. . . . lb.	1.63	-
tanks same basis. . . . lb.	1.75	-
Diethylbenzene, tanks, f.o.b. works lb.	.98	-
Di-2-ethylhexyl azelate (see Dioctyl azelate).		
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).		
Diethylene glycol, tanks, divd. E. . . . lb.	.29½	-
Diethylene glycol monobutyl ether, dms., c.l., frt. alld. E. . . . lb.	.65	-
tanks, frt. alld. E. . . . lb.	.57	-
Diethylene glycol monoethyl ether, dms., c.l., frt. alld. E. . . . lb.	.64	-
tanks, frt. alld. E. . . . lb.	.56	-
Diethylene glycol monomethyl ether, dms., c.l., frt. alld. . . . lb.	.62	-
tanks, frt. alld. . . . lb.	.54	-
Diethylene glycol monobutyl ether acetate, dms., c.l., divd. E. . . lb.	.80	-
tanks, divd. E. . . . lb.	.72	-
Diethylene glycol monoethyl ether acetate, dms., c.l., frt. alld. E. lb.	.80	-
tanks, frt. alld. . . . lb.	.72	-
Diethylenetriamine, tanks, f.o.b. works. . . . lb.	1.60	-
Diethylenetriamine pentaacetic acid, pentasodium salt solution, tank-cars/tanktrucks, frt-equalized . . . . lb.	.45	-
Digitoxin, USP, imp., bots. . . . gram	2.80	-
Diglycol laurate, dms., ton lots. . . . lb.	.32½	-
Diglycol stearate, dms., t.l. . . . lb.	.62	-
Dihydrazine sulfate, dms., works. . . lb.	1.10	-
Dihydrostreptomycin sulfate, bulk kilo.	48.00	-
Dihydroxyacetone, 50-kilo lots, works. . . . kilo.	40.00	-
Di-isobutyl ketone, tanks, divd. . . . lb.	.60	-
Di-isobutyl phthalate tanks, divd. E. lb.	.55	-
Di-isobutylene, tanks, f.o.b. Houston. . . . lb.	.37	-
Di-isodecyl phthalate, tanks, divd. . . lb.	.40	-
Di-isononyl phthalate, tanks, divd. . . lb.	.40	-
Di-iso-octyl azelate, tanks, divd. E. . lb.	.99	-
Di-iso-octyl phthalate, tanks, divd. . . lb.	.40	-
Di-isopropanolamine, dms., c.l., frt. alld. . . . lb.	.66½	-
tanks, same basis. . . . lb.	.58½	-
Di-isopropylamine, dms., c.l. divd. . . lb.	1.17	-
tanks, same basis. . . . lb.	1.07	-
Dilauryl 3,3-thiodipropionate, dms., t.l., frt. alld. . . . lb.	1.89	-
Dill oil, USP, dms. . . . lb.	7.00	-
Dimethyl anthranilate, dms. . . . lb.	15.80	-
Dimethyl benzyl carbinyl acetate, 25-lb. dms. . . . lb.	6.95	-
Dimethyl carbonate, dms, t.l., f.o.b. works. . . . lb.	.90	-
Dimethyl dichlorovinyl phosphate, 55-gal. dms., f.o.b. . . . lb.	1.80	-
Dimethyl ethanolamine, anhyd., dms., c.l., divd. E. . . . lb.	1.15	-
tanks, divd. E. . . . lb.	1.07	-
Dimethyl ether, aerosol grade, tanks, divd . . . . lb.	.38	-
Dimethyl phthalate, tanks, f.o.b works. . . . lb.	.65	-
Dimethyl sebacate, tanks, f.o.b works. . . . lb.	2.48	-
Dimethyl sulfate, ret. dms., c.l., f.o.b. works. . . . lb.	.57	-
tanks. . . . lb.	.48	-
Dimethyl sulfide, tanks, works . . lb.	.59	-
Dimethyl sulfoxide, tanks, works . . lb.	.78	-
Dimethylacetamide, bulk f.o.b. . . . lb.	.87½	-
Dimethylamine, 25% soln., tanks, frt. equald., 100% basis. . . . lb.	.63½	-
40% soln., tanks, frt. equald., 100% basis. . . . lb.	.63½	-
anhyd., tanks, frt. equald. . . . lb.	.54½	-
N,N-Dimethylaniline, t.l., f.o.b. . . . lb.	1.03	-
t.l. dms. . . . lb.	1.11	-
N,N-Dimethylformamide, dms., c.l., t.l., f.o.b., works. . . . lb.	.57	-
tanks, same basis. . . . lb.	.49	-
2,4-Dinitroaniline, tons-lots, f.o.b. . . lb.	1.22	-
Dinitroaniline, orange toner, CP, bgs., divd. E. of Rockies. . . . lb.	5.20	-
2,4-Dinitrochlorobenzene, crystallizing at 47°, t.l., f.o.b. Charlotte, N.C. . . . lb.	.98	-
2,4-Dinitrophenol, 250-lb. dms., f.o.b. Charlotte, N.C. . . . lb.	1.96	-
Dinitrotoluene, mix., tech. f.o.b. works. . . . lb.	.30	-
2,4-Dinitrotoluene, dms., c.l., t.l., works. . . . lb.	1.25	-
tanks, works. . . . lb.	.80	-
Dioctyl adipate, tanks, frt. alld. E. . . lb.	.61	-
Dioctyl azelate, tanks, divd. E. . . . lb.	.99	-
Dioctyl phthalate, tanks, divd. . . . lb.	.40	-
Dioctyl sebacate, 99%, tanks, f.o.b. works. . . . lb.	1.47	-
1,4-Dioxane, tanks, frt. alld. E. . . . lb.	1.13	-
t.l., same basis. . . . lb.	1.21	-
Dipentaerythritol, bgs., c.l., t.l., divd. E. . . . lb.	1.49	-
Dipentene steam-dist., tanks, f.o.b. Fla. works . . . . lb.	.95	-
sulfate turpentine derived, tanks. lb.	.85	-
Dip oil (see Tar acid oil).		
Diphenhydramine hydrochloride, USP, dom., 1,000-kilo lots, dms., divd. . . . kilo.	20.00	24.00
Diphenyl, 99.9%, bgs., c.l., t.l., works. . . . lb.	[illegible]	[illegible]
tanks, works. . . . lb.	[illegible]	[illegible]
Diphenyl oxide, tech. grade, tanks . lb.	1.11	1.20
Diphenylamine, refd., flakes, bgs., t.l., works, frt. equald. . . . lb.	1.25	-
molten, tanks, works. . . . lb.	1.00	-
octylated, flake, bgs., t.l., f.o.b. works. . . . lb.	7.68	-
Diphenylguanidine, bgs., t.l., frt. alld. . . . lb.	2.52	-
Diphenylhydantoin-sodium USP, dms. . . . lb.	5.00	5.60
Diphenylmethane 4,4-di-isocyanate, polymeric, bulk, c.l., min. frt. alld. . . . lb.	.91	-
Dipropylene glycol, tanks, frt. alld. . lb.	.45	-
Dipropylene glycol monomethyl ether, dms., c.l., divd. . . . lb.	.54	-
tanks, same basis. . . . lb.	.46	-
Di-o-tolylguanidine, powd., dms., t.l., frt. alld. . . . lb.	2.92	-
Di-o-tolylthiourea, tech., solid, dms., t.l., frt. alld. . . . lb.	3.11	-
Ditridecyl phthalate, tanks, divd. . . . lb.	.64	.65
Diundecyl phthalate, tanks, divd. . . . lb.	.61	.65
Divinylbenzene, 100% basis, tanks works. . . . lb.	2.75	2.60
dms, 100% basis. . . . lb.	3.00	2.70
l-Dodecanol, syn., tanks, f.o.b. . . . lb.	.76½	-
Dodecenyl succinic anhydride, dms., c.l., t.l., divd. . . . lb.	.86	-
Dodecylbenzene (see Detergent Alkylate).		
Dodecylphenol, tanks, min. frt. alld. E. . . . lb.	.48	.53
Dyes, coaltar, certified colors for food, drugs and cosmetics, 100 lb. and over, frt. prepaid or alld. .		
Blue, FD&C, No. 1. . . . lb.	21.20	22.60
No. 2. . . . lb.	29.15	29.22
Green, FD&C, No. 3. . . . lb.	49.50	65.00
Red, FD&C, No. 3. . . . lb.	24.00	24.50
Yellow, FD&C, No. 5. . . . lb.	7.45	7.85
No. 6. . . . lb.	6.45	6.75
Dyes, coaltar, certified colors for drugs and cosmetics. 100-lb. lots divd.		
Green, D&C, No. 5. . . . lb.	38.50	-
No. 6. . . . lb.	42.80	-
Red, D&C, No. 4. . . . lb.	18.85	-
No. 17. . . . lb.	38.90	-
No. 19. . . . lb.	38.25	-
No. 22. . . . lb.	12.45	-
No. 28. . . . lb.	59.95	-
No. 33. . . . lb.	48.95	-
Yellow, D&C, No. 7. . . . lb.	21.00	-
No. 8. . . . lb.	20.55	-
No. 10. . . . lb.	48.80	48.85
No. 11. . . . lb.	35.25	-
Dyes, coaltar, for general use in cloth and paper dyeing (by Color Index Name). f.o.b. works		
A Bk 1 Blue black ex. conc. . . . lb.	5.75	-
Dyes, A B 9 Blue 2G . . . . lb.	5.46	-
A B 45 Alizarine Blu SAP 150% . lb.	19.85	-
A B 90 Alizarine Br. Cy G . . . . lb.	14.13	-
A B 113 Navy 5R. . . . lb.	6.55	-
A Gr 16 Gast 2G 333% . . . . lb.	22.12	-
A Or 7 11 . . . . lb.	3.72	-
A Or 8 RO Ex. Conc. . . . lb.	4.00	-
A Or 10 Wool Or G. . . . lb.	4.30	-
A Or 74 Metallized Or GNA . . . . lb.	8.15	-
A R 20. . . . lb.	5.13	-
A R 14 Azo Rubine 133% . . . . lb.	8.85	-
A R 18 Scarlet 4R Conc. . . . lb.	5.46	-
A R 88 Fast Red A. Conc. . . . lb.	6.85	-
A R 151 Silk Red 3B Conc. . . . lb.	4.50	-
A V 17 5BNS Conc. . . . lb.	9.75	-
A V 49 48NS Conc. . . . lb.	12.22	-
A Y 17 Fast Light Yell 2G. . . . lb.	5.69	-
A Y 23 Tartrazine Ex Conc. . . . lb.	6.18	-
B B 9 Zinc Free . . . . lb.	16.40	-
B Br 4 Bismark Brown R Ex. Conc. lb.	4.42	-
B G 1 Jade Crystals. . . . lb.	9.55	-
B Gr 4 Malachite Green Crystal. . lb.	6.90	-
B V 1 Methyl Violet Crystals. . . . lb.	6.80	-
B V 10 Rhodamine B Ex. . . . lb.	10.95	-
B Y 2 Bond Yell SFA 150% . . . . lb.	10.10	-
D Bl 1 Sky Blue 6B Conc. . . . lb.	4.62	-
Ex. Conc. 300% . . . . lb.	9.25	-
D Bl 8 Azurine G Conc. . . . lb.	9.45	-
D Bk 22 Fast Black GR . . . . lb.	2.85	-
Fast Black GR 150% . . . . lb.	4.28	-
D Br 230 Resin Fast Brown BRNB 200% . . . . lb.	7.23	-
D Gr 26 Resin Fast Green GL . . . lb.	9.15	-
D R 24 B Ex. Conc. . . . lb.	7.98	-
D R 31 Brilliant-Red 12B Conc. . lb.	6.16	-
D R 80 Fast Red 8BLN . . . . lb.	6.15	-
D R 81 Paper Red 8BLP . . . . lb.	6.85	-
D R 251 Fast Scarlet AV . . . . lb.	6.25	-
D Or 102 Fast Orange WSP Liq. . lb.	2.47	-
WS. Conc. 150% . . . . lb.	11.25	-
D Y 4 Brilliant Paper Yell 3GX 125% . . . . lb.	4.69	-
Brilliant Paper Yell 3GX Liq. . . lb.	1.75	-
D Y 11 Stilbene Yellow GA. Ex. Conc. . . . lb.	3.03	-
D Y 41 Fast Yellow RGL Conc. 200% . . . . lb.	9.75	-
D Y 27 Resin Fast Yellow L5G. . . lb.	14.40	-
Ds R 1 Scarlet BA . . . . lb.	4.26	-
Ds R 81 Pink REL 200% . . . . lb.	21.00	-
Ds Y 3 Yellow G . . . . lb.	3.65	-
Ds Y 54 Yellow 3G . . . . lb.	8.84	-
Ds Or 3 Orange GRA . . . . lb.	4.91	-
Ds Or 37 Orange OB . . . . lb.	3.77	-
Ds V 1 4RN Paste . . . . lb.	7.85	-
Ds V 26 Bordeaux BV 200%. . . . lb.	17.25	-
Ds Bl 27 Blue BGLF . . . . lb.	10.05	-
Ds Bl 102 Blue GFDA 300% . . . lb.	22.80	-
50% Paste . . . . lb.	4.10	-
V G 1 Jade Green Double Paste . lb.	5.50	-
V Bk 25 Olive TA Paste. . . . lb.	5.85	-

E

Emetin, tech., 96-99%, dms., t.l. . . lb.	7.00	-
Ephedrine, syn. anhyd., USP, 80-oz. lots . . . . oz.	1.25	-
Ephedrine hydrochloride, NF, cryst., less than 1,000 kg . . . . kilo	38.25	40.25
Ephedrine sulfate, USP, cryst., dms., less than 1,000 kilos . . . . kilo	43.00	45.25
Epichlorohydrin, tanks, divd. . . . lb.	.86	-
Epinephrine base, syn., USP, bots., 100-gram lots. . . . gram	.60	-
Epoxy resin, liquid, bulk tanks, divd. . lb.	1.31	1.41
Solid, bgs., t.l. . . . lb.	1.28½	1.33½
Epsom salt (see Magnesium sulfate).		
Erythorbic acid, powd., gran., 100 lb. dms., t.l. or mixed t.l. f.o.b. works. . . . lb.	4.10	4.25
Ester gum, gum-rosin type, dms., c.l., divd., Ill., Md., Ky., E. States, Minneapolis, N.C., Ohio, St. Louis, St. Paul, Va., W. Va. lb.	.75	-
Ester gum, wood-rosin type, dms., c.l., same basis. . . . lb.	.43	.46
Ethyl acetate, syn., 85-88%, tanks, divd. . . . lb.	.41	.41½
99%, tanks, divd. . . . lb.	.41½	.42½
Ethyl acetoacetate dms., c.l., divd. . lb.	1.13	-
tanks, divd. . . . lb.	1.05	-
Ethyl acrylate, tanks, frt alld. . . . lb.	.66	-
Ethyl alcohol, syn., 190 pf., USP tax free, tanks, divd. E. . . . gal.	1.55	-
Ethyl alcohol, absolute, 200 pf., tax free prices 12c. higher than 190 pf., tax free.		
Ethyl alcohol, fermentation, tanks, f.o.b. works . . . . gal.	1.06	1.28
Price range attributable to various state tax incentives.		
Ethyl alcohol, denat. (see Denatured alcohol, ethyl).		
Ethyl p-aminobenzoate, NF (see Benzocaine).		
Ethyl benzoate, dms. . . . lb.	1.35	1.50
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E. . . . lb.	.78	-
Ethyl butyrate, dms. . . . lb.	1.35	1.50
Ethyl cellulose, standard vis., 7 cps. bgs., t.l., frt. equald. E. . . . lb.	4.55	-
standard vis., 10, 20, 45, 100 cps., t.l., frt. equald. E. . . . lb.	4.17	4.22
medium vis., 50, 70, 100 cps., t.l., frt. equald. E. . . . lb.	4.25	-
USP vis., 7 cps bgs., t.l., frt. equald. E . . . . lb.	4.88	-
USP 10,20,45,100 bgs., t.l., frt. equald. E . . . . lb.	4.59	4.69
VSP (medium) 50,70,100 bgs., t.l., Frt. equald. E. . . . lb.	4.51	-
Ethyl chloride, tech., cyls., frt. alld. . lb.	.26	.28½
tanks, frt. alld. . . . lb.	.24	.26½
Ethyl cinnamate, dms. . . . kilo	41.00	-
Ethyl ethanolamines, mixed. dms., t.l., divd. E. . . . lb.	1.23	-
tanks, divd. E. . . . lb.	1.15	-
Ethyl ether, refined, tanks, f.o.b. . . . lb.	.46	-
Ethyl hexanoate, dms. . . . lb.	4.25	4.75
2-Ethylhexoic acid, dms., c.l., t.l., divd. E. . . . lb.	.63	-
tanks divd. E. . . . lb.	.57	-
2-Ethylhexyl acrylate, straight or mixed, tanks, frt. alld. E. . . lb.	.79.5	-
2-Ethylhexyl alcohol, tanks, divd. . . lb.	.35	-
Ethyl iodide, cbys., works. . . . lb.	6.25	-
Ethyl linalool, syn. 55-gal. dms. . . . lb.	10.60	-
Ethyl linalyl acetate, syn., 55-gal. dms. . . . lb.	10.65	-
Ethyl methacrylate, tanks, frt. equald. . . . lb.	1.06	-
n-Ethyl morpholine, dms., t.l., frt. alld. . . . lb.	2.00-	-
tanks, same basis. . . . lb.	1.92	-
n-Ethyl-a-naphthylamine, dms., works. . . . lb.	1.04	-
Ethyl oxalate (see Diethyl oxalate).		
Ethyl parathion (see Parathion, ethyl).		
Ethyl silicate dist. (see Tetraethyl orthosilicate).		
Ethyl silicate, 40% available SiO_2, dms., t.l., f.o.b. works. . . . lb.	1.45	1.48
tanks, f.o.b. works. . . . lb.	1.39	-
N-Ethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. . . . lb.	3.18	-
tanks, same basis. . . . lb.	3.10	-
N-Ethyl-o-toluidine, dms. . . . lb.	2.85	2.90
Ethyl vanillin 100 lb. dms., 500 lbs. or more . . . . lb.	13.50	-
25 lb. dms., 500 lbs. or more . . . . lb.	13.75	-
100 lb. dms., less than 500 lbs. . . lb.	14.00	14.50
Ethylamine (see Mono-Di-and Tri-)		
N-Ethylaniline, dms., c.l., t.l., f.o.b. works. . . . lb.	1.66	-
tanks, same basis . . . . lb.	1.58	-
Ethylbenzene, bulk, f.o.b. Houston, Tex. . . . lb.	.22	.23
Ethylene, contract, divd. . . . lb.	.18	.18½
Ethylene brassylate, dms. . . . lb.	18.00	18.25
Ethylenediamine, 99%, tanks, f.o.b. works. . . . lb.	1.30	1.305
Ethylenediamine dihydriodide . . . . lb.	7.55	9.25
Ethylenediamine tetraacetic acid, tetrasodium salt, soln., t.c., t.t., frt. equald. . . . lb.	.36½	-
Ethylene dibromide dms., c.l., frt., equald. . . . lb.	.38	.48
tanks, frt. equald. . . . lb.	.32	.42
Ethylene dichloride, tanks, f.o.b. works. . . . lb.	.17	.17¼
Ethylene glycol, indust., tanks, frt. alld. . . . lb.	.31	-
Ethylene glycol, monobutyl ether, tanks, divd. E. . . . lb.	.41½	-
Ethylene glycol monoethyl ether, tanks, divd. E. . . . lb.	.51	-
Ethylene glycol monomethyl ether, tanks, divd. E. . . . lb.	.34	-
Ethylene glycol monobutyl ether acetate, tanks, frt. alld. E. . . lb.	.64½	-
Ethylene glycol monoethyl ether acetate, tanks, ft. alld., E. . . . lb.	.55½	-
Ethylene glycol monomethyl ether acetate, tanks, frt. alld. E. . . . lb.	.43	-
Ethylene oxide, tanks f.o.b. . . . lb.	.35	.45
Ethylene trichloride (see Trichloroethylene).		
Eucalyptol, NF, dms. Portuguese . kilo.	7.50	-
Eucalyptus Citriodora Oil, Chinese kilo	3.05	-
Eugenol, USP, dms. . . . kilo	7.55	-

F

Fennel oil, sweet, USP, cns. . . . lb.	9.00	-
Fennel seed, Egypt . . . . lb.	.59	.68
Indian. . . . lb.	.87	.95
Fenugreek seed, Indian, bgs. . . . lb.	.25	.32
Ferric chloride anhyd., tech., 350-lb. dms., c.l., works. . . . 100 lbs.	36.00	-
Ferric chloride, 42 Be. photo grade dms., c.l., works . . . . 100 lbs.	9.10	-
Ferric chloride, sewage grade, 100 per-cent basis, f.o.b. works, tank works. . . . ton	176.00	255.00
Ferric nitrate, cryst., dms., t.l., f.o.b. lb.	.64	-
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works. . . . lb.	1.65	-
Ferric oxides (see Iron Oxides).		
Ferric phosphate, FCC insoluble powder, dms, 10,000 lbs. . . . lb.	1.10	1.15
Ferric pyrophosphate, soluble, purif., pearls, 50-lb. dm. . . . lb.	1.11	-
Ferric resinate, precip., 6.75% Fe. dms., ton lots frt. alld. . . . lb.	.45	-
Ferric sulfate, partly hydrated, 100-lb. bgs., c.l., works. . . . ton	141.00	-
bulk, works. . . . ton	117.00	-
Ferric ammonium citrate, NF, brown, green gran. 100 lb. dms., 2,000 lb. min., f.o.b. shipping pt. . . . lb.	2.00	2.95
2c. per pound surcharge for shipments W. of Denver		
Ferric-ammonium oxalate, fine gran., 250-lb. dms., t.l., f.o.b. works. E. . . . lb.	.42	-
Ferric hydroxyethylene diaminetriacetic acid, industrial grade, sodium salt, soln., 4.5% Fe, t.c., t. t., f.o.b. works . . . . lb.	.55	-
agricultural grade, sodium salt solution, 5% Fe, t.c., t. t., f.o.b. works. . . . lb.	.64	-
Ferrous fluoborate liq. conc., dms., t.l., works, frt. equald. . . . lb.	.64	-
Ferrous gluconate, NF, t.l., works E. lb.	2.25	-
Ferrous naphthenate, liq., 6%, Fe. dms., divd. . . . lb.	1.17	-
Ferrous sulfate, moist, bulk, t.l. f.o.b. works. . . . ton	30.00	-
heptahydrate, gran., bulk, t.l., f.o.b. works. . . . ton	145.00	150.00
monohydrate, gran., bulk., t.l., f.o.b. works. . . . ton	170.00	180.00
USP, powd., 400-lb. dms. . . . lb.	.49	-
cryst., 250-lb. dms. . . . lb.	.61	-
Fir oil, Canada dms. . . . lb.	10.00	-
Siberia, dms. . . . lb.	12.75	-
Fish oil, refd., alkali, tanks, c.l. . . . lb.	.29	-
kettle-bodied, tanks. . . . lb.	.32	.36
light, cold-pressed, dms., c.l. . . . lb.	.34	-
tanks. . . . lb.	.28	-
Fishmeal, dom., menhaden, 60% protein grd., bulk, f.o.b. Atlantic port. . . . ton	295.00	-
f.o.b. Gulf port. . . . ton	290.00	-
Imp., Chilean, 65% protein min., bulk, c.l., t.l., ex whse., f.o.b. Atlantic and Gulf ports. . . ton.	285.00	-
Fluoboric acid, dms., t.l., works, frt. equald. . . . lb.	.70	-
Fluorocarbon, No. 11 bulk, tanks, delvd. . . . lb.	.57	.64
No. 12, bulk, same basis . . . . lb.	.68	.74
No. 22, bulk, same basis . . . . lb.	1.05	1.14
No. 113, bulk, same basis . . . . lb.	.89	.93½
No. 114, bulk, same basis . . . . lb.	1.02	1.08
Fluosilicic acid (see Hydrofluosilicic acid).		
Formaldehyde, 37% methanol free (uninhibited) divd., gulf . . . . lb.	.088	.0905
44-45% (1% methanol) tanks, divd. . . . lb.	.1015	.1065
37% (inhibited 7% methanol, divd. . . . lb.	.0945	.1025
37% (inhibited 11-15% methanol) tanks, divd. . . . lb.	.1055	.1060
Formamide, tanks, f.o.b. . . . lb.	.39	-
dms., same basis . . . . lb.	.44	-
Formic acid 90% tanks, f.o.b. works. . . . lb.	.36½	-
95% dms., c.l., works. . . . lb.	.51½	-
Fructose, cryst., 18,000 kilos or more, dms. . . . lb.	.90	1.03
Fumaric acid, food grade, bgs. t.l., frt. equald. E. . . . lb.	.75½	.77½
tech. grade, bgs., t.l., f.o.b. frt. equald. . . . lb.		.62½
Furfural, tanks, f.o.b. Cedar Rapids, Iowa, and Belle Glade, Fla. lb.	.75	-
Furfuryl alcohol, tanks, f.o.b. Memphis, Tenn. and Omaha, Neb. . . . lb.	.72	-

G

G salt, dms., frt. alld. 100% basis . . lb.	2.30	-
Gallic acid, 400-kilo lots . . . . kilo	23.05	-
Garlic oil, dms., Egyptian. . . . kilo	100.00	110.00
Gelatin, edible, 100 AOAC test, dms., l.t.l., divd. . . . lb.	1.50	1.75
125 AOAC test, dms., l.t.l. . . . lb.	1.75	1.85
150 AOAC test, dms., l.t.l. . . . lb.	1.85	1.95
175 AOAC test, dms., l.t.l. . . . lb.	1.95	2.05
200 AOAC test, dms., l.t.l. . . . lb.	2.05	2.15
225 AOAC test, dms., l.t.l. . . . lb.	2.10	2.25
250 AOAC test, dms., l.t.l. . . . lb.	2.20	2.35
275 AOAC test, dms., l.t.l. . . . lb.	2.30	2.45
300 AOAC test, dms., l.t.l. . . . lb.	2.50	2.65
Gentian violet (see Methyl rosaniline chloride).		
Geraniol, syn., 90-92%, dms. . . . lb.	5.25	-
nat., 90-92%, dms. . . . lb.	3.50	-
syn. 96-98%, dms. . . . lb.	5.75	-
Geranium oil, Moroccan . . . . lb.	46.00	-
Bourbon. . . . lb.	55.00	-
Chinese . . . . lb.	23.00	-
Egypt . . . . lb.	22.75	-
Turkish (see Palmarosa oil).		
Geranyl acetate, dms. . . . lb.	5.44	6.00
nat., dms. . . . lb.	10.95	-
Geranyl formate, syn., dms. . . . lb.	6.60	-
nat., dms. . . . lb.	15.95	-
Gilsonite, g.p., bulk, c.l., f.o.b. Bonanza, Utah . . . . ton	180.00	-
selects, same basis . . . . ton	180.00	-
Ginger, Cochin, bgs. . . . lb.	.63	.65
Chinese . . . . lb.	.56	.58
Ginger oil, Chinese . . . . kilo	35.00	44.00
Indian . . . . kilo	65.00	-
Ginger oleoresin, NF, bots. . . . lb.	30.00	-
Glauber's salt (see Sodium sulfate).		
Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works . . . . lb.	.50	-
tanks, same basis . . . . lb.	.44	-

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Glue, bone, extracted, green, jellygrams, bgs., c.l. . . . lb.	-	-
85 jellygrams, bgs., c.l., f.o.b. . . lb.	.66	-
115 jellygrams, bgs., c.l., f.o.b. . . lb.	.78	-
135 jellygrams, bgs., c.l., f.o.b. . . lb.	.77	-
164 jellygrams, bgs., c.l., f.o.b. . . lb.	.79	-
192 jellygrams, bgs., c.l., f.o.b. . . lb.	.87	-
220 jellygrams, bgs. c.l. f.o.b. . . . lb.	.93	-
Glue, hide,		
108 jellygrams, bgs., t.l., f.o.b. . . . lb.	.80	-
135 jellygrams, bgs., t.l., f.o.b. . . lb.	.85	-
164 jellygrams, bgs., t.l., f.o.b. . . lb.	.90	-
192 jellygrams, bgs., t.l., f.o.b. . . lb.	.95	-
222 jellygrams, bgs., t.l., f.o.b. . . lb.	1.00	-
251 jellygrams, bgs., t.l., f.o.b. . . lb.	1.05	-
283 jellygrams, bgs., t.l., f.o.b. . . lb.	1.10	-
315 jellygrams, bgs., t.l., f.o.b. . . lb.	1.15	-
347 jellygrams, bgs., t.l., f.o.b. . . . lb.	1.20	-
379 jellygrams, bgs., t.l., f.o.b. . . lb.	1.25	-
411 jellygrams, bgs., t.l., f.o.b. . . lb.	1.30	-
444 jellygrams, bgs., t.l., f.o.b. . . lb.	1.35	-
477 jellygrams, bgs., t.l., f.o.b. . . lb.	1.40	-
Glutamic acid, 99½% dms., 100-lb. lots, frt. alld. . . . kilo	6.65	-
Glycerine, nat., refd., USP, CP 99½% tanks, divd. . . . lb.	.89½	-
USP, CP, nat. 96%, tanks, divd. . lb.	.87¾	-
Syn. 96% tanks divd. . . . lb.	.89¼	-
Syn. 99.5%, tanks divd. . . . lb.	.91	-
Glycine (see Aminoacetic acid).		
Glyceryl guaiacolate. 100-lb. fib. dms. f.o.b. . . . kilo	14.50	-
Glycolic acid (see Hydroxyacetic acid)		
Glyoxal 40% soln., bulk, tanks, divd. . . . lb.	.44½	-
Grapefruit oil, Fla., dms. . . . lb.	3.00	-
Calif., dms. . . . lb.	3.00	-
Israeli . . . . lb.	3.00	-
Graphite, amorph, powd., bgs., dms., ex whse. . . . lb.	.18	.40
cryst., 88-90%, powd., bgs., dms., ex whse. . . . lb.	.30	.60
Graphite, cryst., 90-92%, powd., bgs., dms., ex whse. . . . lb.	.40	.75
95-96% powd., bgs., dms., ex whse. . . . lb.	.60	.90
Graphite, amorph., cryst., 97% and up, powd., bgs., dms., ex whse. . . . lb.	.80	1.20
Graphite, flake, No. 1, 90-95%, bgs., dms., ex whse. . . . lb.	.65	.75
No. 2, 80-95%, bgs., dms., ex whse. . . . lb.	.65	.75
Grease (See Oils, Fats & Waxes market report)		
Grease oil (See Lard oil).		
Guaiacol, tech., 500-lb dms., 24,000 lb. min., f.o.b. Wallingford, Conn. . . . lb.	2.70	-
Guaiacwood oil, dms. . . . lb.	3.75	-
Guar gum, edible, bgs., c.l., f.o.b. ship't. pt. . . . lb.	.50	.75
Indust., bgs., high viscosity, c.l., same basis. . . . lb.	.50	.85

H

Heliotropin, dms. . . . lb.	8.00	8.25
Hemlock oil (see Spruce oil).		
Henbane leaves, bls. . . . lb.	.55	-
Heptane, indust., tanks, f.o.b. Beaumont, Tex. . . . gal.	1.07	-
95%, tanks, f.o.b. Houston, Tex. . . . gal.	1.18	-
Heptanoic acid, syn., tanks, f.o.b. . . .	.65	-
l-Hexadecanol, syn., tanks, f.o.b. . . lb.	.43½	-
Hexahydrophthalic anhydride, tech. dms., l.t.l., f.o.b. works . . . lb.	1.42	-
Hexamethylenetetramine, gran. bgs., c.l., t.l., works . . . . lb.	.55	-
gran. dms., c.l., t.l., works . . lb.	.59	-
pdr. bgs., c.l., t.l., works. . . lb.	.60	-
powd. dms, c.l., t.l., works . . lb.	.63	-
Hexane, indust., tanks, works. . . . gal.	1.01	1.15
95%, tanks, f.o.b. Houston, Tex. . . . gal.	1.12	-
l-Hexanol, syn., tanks, f.o.b. . . . lb.	.60	-
Hexyl alcohol, mixed isomers, tanks. . . . lb.	.32	-
p-Hexyl methacrylate, dms., c.l., works. . . . lb.	.75½	-
Hexylene glycol, tanks, divd. . . . lb.	.50	-
Hexylresorcinol, USP, dms., 25-lb. lots or more, frt. alld. . . . lb.	30.00	-
Homatropine hydrobromide, USP, 10-100-oz. lots, bots. . . . oz.	10.25	11.30
Homatropine methylbromide, USP, 10-250 oz. lots, bots. . . . oz.	9.70	10.70
Horehound herb, bls. . . . lb.	.25	.28
Hydrazine hydrate, 85%, t.l., frt. alld. . . . lb.	1.84	-
55-gal. dms., t.l., frt. alld. . . . lb.	1.81	-
Hydriodic acid, purif., 47%-57%, 2-cbys., f.o.b. works. . . . lb.	7.50	-
Hydroabietyl alcohol, tech., solid, dms., c.l., f.o.b. zone I . . . lb.	.65	-
tanks, f.o.b. zone I . . . . lb.	.60	-
Hydrobromic acid, 48% dms., c.l., t.l., f.o.b. . . . lb.	.35½	-
Hydrochloric acid, anhyd. (see Hydrogen chloride).		

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Hydrochloric acid, 20° Be, tanks, works, East .... ton	55.00	65.00
Midwest .... ton	60.00	70.00
Gulf Coast .... ton	57.00	–
West Coast .... ton	90.00	105.00
22° acid, same basis, East .... ton	68.00	76.00
Midwest .... ton	66.00	70.00
Gulf Coast .... ton	63.50	–
West Coast .... ton	100.00	115.00
NOTE: Prices vary and are either freight collect freight equalized depending on producer and location.		
Hydrocortisone acetate, micronized, dms., 25 kilos or more . gram.	.70	–
Hydrocortisone, alcohol, micronized, dms., 25 kilos or more . gram.	.70	–
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)		
Hydrofluoric acid, aqueous, 70% tanks., f.o.b. frt. equald .... 100lbs.	43.00	–
Hydrofluosilicic acid, 15-gal. dms., t.l., works, 30% basis .... ton	–	–
tanks, 100% basis, works .... ton	190.00	210.00
Hydrogen bromide, anhyd. cyls., extra, 30,000-lbs., f.o.b. works. . lb.	7.00	–
Hydrogen chloride, anhyd., 50-lb. cyls., c.l., works .... lb.	.65	–
600-lb. cyls., c.l., same basis. . lb.	.62	–
Hydrogen chloride, anhyd., tube trailers, seller's trailer, min. 100,000 lbs. a year .... lb.	.37	–
tube trailers, buyer's trailer .... lb.	.27	–
Hydrogen chloride anhyd., tanks, works .... ton	270.00	–
Hydrogen cyanide, liq., 99.5%, tanks, works .... lb.	.60	–
Hydrogen fluoride, anhyd., tank cars c.l., f.o.b., frt. equald .... lb.	.6875	–
Hydrogen peroxide, 35% tech., tanks, works, ft. equald .... lb.	.2325	–
50% tankcars, frt. equald .... lb.	.3225	–
70%, tankcars frt. equald .... lb.	.45	–
Hydrogen sulfide, liq., 99.25% min. seller's tanks, works .... lb.	.12	.13
170 lb. cylinders .... lb.	2.27	–
Hydroquinone, photo grade, consumers c.l., t.l., divd .... lb.	2.54	–
tech., dms. c.l., divd .... lb.	1.95	–
Hydroxyacetic acid, tech., 70%, tanks, Belle, W. Va .... lb.	.49½	–
Hydroxylammonium sulfate, dms., t.l., f.o.b. .... lb.	.83	–
p-Hydroxybenzene sulfonic acid (see p-Phenolsulfonic acid).		
Hydroxybutyl methylcellulose (visc. 12,000 cps.) 50 lb. bags, tl., cl. 30,000 lb. min., divd., zone 1 .... lb.	2.10	–
Hydroxycitronellal dimethyl acetal, dms .... lb.	16.55	–
p-Hydroxydiphenylamine, dms., t.l., f.o.b. works .... lb.	4.10	–
Hydroxycitronellal, natural, dms .... lb.	9.40	–
pure, dms .... lb.	13.60	–
extra grade, dms .... lb.	14.80	–
syn., dms .... lb.	9.50	–
Hydroxyethyl cellulose, t.l., divd .... lb.	2.07	2.12
Hydroxyethyl methylcellulose (visc. 5,000 through 45,000 cps.) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 .... lb.	2.73	–
Hydroxypropyl methylcellulose, premium, U.S.P. (visc. 4,000 through 15,000) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 .... lb.	2.87	–
Hydroxypropyl methylcellulose, U.S.P (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 .... lb.	2.99	–
Hydroxypropyl methylcellulose (visc. 4,000 through 15,000 cps) 50 lb. bags, t.l., c.l., 30,000 lb. in., divd., zone 1 .... lb.	2.17	–
Hydroxypropyl methylcellulose (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 .... lb.	2.64	–
8-Hydroxyquinoline (see Oxyquinoline)		
Hypophosphorous acid, purif., 50% dms., c.l., works .... lb.	3.15	–

I

Ichthammol, NF, 200-kilo dms .... lb.	4.25	4.50
Iminodiacetic acid, 98% min., dms., c.l., t.l., works .... lb.	3.00	–
Indole, dms .... lb.	25.50	–
Inositol, 50-kilo dms., 1000 kilos or more, f.o.b. works .... kilo	17.50	22.00
Iodine, crude, dms .... kilo	13.50	18.00
Iodine USP .... lb.	14.21	14.59
Iodochlorhydroxyquin, USP, XVI 50-kilo dms., 100-499 kilos, frt. alld .... kilo.	35.00	45.00
Iodoform, NF, dms., 300-lbs., f.o.b. works .... lb.	24.00	–
a-Ionone, dms .... lb.	18.20	–
b-Ionone, dms .... lb.	13.10	–
Ipecac root, whole, bgs .... lb.	25.00	–
Irish moss, bleached, prime, whole .... lbs.	.55	.60
Iron blue, alkali-resistant, bgs., l.c.l., ton lots, div. E .... lb.	2.70	–
Iron blue, reg., bgs., l.c.l., ton lots, same basis .... lb.	2.00	2.15
Iron, purif., powd., pails, 10-100-lb. lots .... lb.	1.00	–
Iron oxide, black, syn., bgs., c.l., frt. equald .... lb.	.68½	.75½
Iron oxide, brown, syn., bgs., c.l., frt. equald .... lb.	.68	.78½
Iron oxide, metallic brown, l.c.l., bgs., frt. equald .... lb.	.13	.15
Iron oxide, nat., red., dom., pure, bgs., c.l., works .... lb.	.275	.40
Iron oxide, yellow .... lb.	.18	–
syn., bgs., c.l., frt. equald .... lb.	.63	.71
Iron oxide, buff, nat., dom, bgs., c.l., t.l., works, light .... lb.	.75	.80
dark .... lb.	.80	–
other shades, bgs., c.l., frt. equald .... lb.	.50	.55
Isatoic anhydride, bgs., f.o.b. works lb.	1.40	–
Isoamyl alcohol, 95% tanks, frt. alld .... lb.	1.44	1.46
Isoborneol, 100 lb. dms .... lb.	7.25	–
Isobornyl acetate, dms .... lb.	.80	1.15
Isobutyl acetate, solvent grade, tanks, frt. alld .... lb.	.45	.48
Isobutyl acrylate, tanks, frt. alld. E. . lb.	.71	–
Isobutyl alcohol, tanks, divd .... lb.	.29	–
Isobutylene, 99%, tanks, f.o.b. works .... lb.	.32	–
Isobutyl isobutyrate, tanks, f.o.b. works .... lb.	.42½	–
Isobutyl methacrylate, tanks, divd. . lb.	.87	–
Isobutyl phenylacetate, dms .... lb.	3.10	3.50
Isobutyl salicylate, dms .... lb.	3.45	–
Isobutyraldehyde, tech., dms., c.l., divd .... lb.	.43	–
tanks, divd .... lb.	.35	–
Isobutyric acid, dms., c.l., t.l., divd. . lb.	No Prices	
tanks, same basis .... lb.	.75	
Isobutyronitrile, dms., c.l., f.o.b. works frt. collect .... lb.	.84	–
tanks, same basis .... lb.	.75	–
Isoeugenol, dms .... lb.	5.20	5.80
Isoniazid, powd .... kilo	12.00	–
Isonicotinic acid, hydrazine (see Isoniazid).		
Isononyl alcohol, dms., t.l. .... lb.	.48	–
Iso-octyl alcohol, tanks, divd .... lb.	.44	–
Isophorone, tanks divd .... lb.	.81	–
Isophthalic acid, 99%, bulk, f.o.b., Joliet, Ill., min. frt. alld .... lb.	.46	–
Isophthalonitrile, bgs., t.l., works. . lb.	2.65	–
Isopropyl acetate, tanks, divd .... lb.	.47	–
Isopropyl alcohol, anhyd., 99%, tanks, divd .... gal.	1.38	–
refd., 95%, tanks, divd .... gal.	1.31	–
refd., 91%, tanks, divd .... gal.	1.25	–
Isopropyl ether, tanks, divd .... lb.	.44	–
crude, tanks, divd .... lb.	.37	–
Isopropylamine. (see Mono-, Di- or Tri-).		
Isopropyl myristate, dms., t.l., E. . . lb.	1.19	1.50
Itaconic acid, refd. bgs t.l. .... lb.	1.45	1.48

J

J acid, paste, dms., works, 100% basis .... kilo	4.75	–
Japan wax, cs. .... lb.	5.50	5.60
Jojoba oil, 55-gal. dms., f.o.b. Arizona producing point .... gal.	30.00	40.00
Juniperberry oil, Italian .... kilo	120.00	–

K

Kaolin, water washed, fully calcined, bags c.l., f.o.b. Georgia . . ton	255.00	–
NF pwd., colloidal, bacteria controlled, 50 lb. bags, 5,000 lb. lots .... lb.	.24	–
Kaolin, uncalcined, No. 1 coating, bulk, c.l., f.o.b., Georgia .... ton	94.00	–
No. 2 coating .... ton	75.00	–
No. 3 coating .... ton	73.00	–
No. 4 coating .... ton	70.00	–
filler, gen,l purpose, same basis .... ton	58.00	–
delaminated water washed, uncalcined paint grade 1 micron avg., same basis .... ton	182.00	–
dry-grd. airfloated soft, same basis .... ton	60.00	–
Karaya gum, No. 1, powd., bbls .... lb.	2.25	–
No. 2, powd., bbls .... lb.	1.95	–
Kola nuts, bgs .... lb.	.52	.57

L

Lacquer diluent petroleum, 140F.-200F. b.r., t.c., New Jersey and New York .... gal.	1.25	–
Houston, Texas .... gal.	1.29	–
Lacquer diluent, petroleum 200F.-240F. b.r., tankcars, New York and New Jersey .... gal.	1.20	1.25
Houston, Tex .... gal.	1.12	–
Lactic acid, food grade 88%, t.c., f.o.b. works .... lb.	1.06	–
50%, t.c., frt. equald .... lb.	.62	–
tech., 88%, t.c., frt. equald .... lb.	1.03	–
Lactose, edible, reg. bgs., c.l., works .... lb.	.22	.28
Lactose, USP, reg. dms., c.l., t.l., frt. equald .... lb.	.55	.69
Lactose, USP, spray dried, bgs., t.l., frt. equald .... lb.	.60	–
Lake C, red toner, (red 53) bbls., frt. alld .... lb.	5.70	–
Lanolin, anhyd., cosmetic. 400-lb. dms., works .... lb.	1.18	1.25
pharmaceutical, 400-lb. dms. works .... lb.	1.15	–
tech., (under 2% f.f.a.), 400-lb. dms., works .... lb.	1.08	113
Lard (See Oils, Fats & Waxes market report.)		
Lard oil, No. 1, dms., c.l., f.o.b. .... lb.	.34	
tanks, same basis .... lb.	.28	
Lard oil, extra, winter-strained, dms., c.l. .... lb.	.41	–
tanks, same basis .... lb.	.33	–
prime, burning, dms., c.l., same basis, Chicago .... lb.	.43	–
prime, burning, tanks, same basis .... lb.	.35	–
NOTE: 300 Mi. rad. 1¼c. higher, except Texas, 2c., and West Coast, 3c. higher.		
Laurel leaves, Turkish .... lb.	3.00	3.25
Laurent's acid, drums, f.o.b. .... lb.	3.85	–
Lauric acid, coml., pure bgs., c.l. . . . lb.	.65	.71
Lauric aldehyde (aldehyde C-12). dms .... lb.	7.75	–
n-Lauryl methacrylate, dms., c.l., t.l., works .... lb.	1.72	–
Lavandin oil, Abrialis, 30-32%, dms. lb.	6.50	–
Lavender flowers, ord .... lb.	.65	.75
medium, bls .... lb.	.80	.90
select. bls .... lb.	1.10	1.19
Lavender flower oil, NF, French, 40-42%, ester, cns .... lb.	9.00	13.00
spike, Spanish, dms .... kilo	13.00	14.00
Lead acetate, purif., flake. 400-lb. dms., works .... lb.	.46	–
tech., flake, t.l., 400lb. dms., works .... lb.	.37	–
Lead blue, basic, sulfate, bbls., c.l., ship.t. pt., f.o.b. .... lb.	.87	–
Lead carbonate. (see Lead white basic carbonate).		
Lead chloride, 400-lb. dms., works. lb.	3.25	–
Lead dioxide, tech., powd., 200-lb. dms., t.l., works .... lb.	.66	.70
Lead fluoborate, liq. conc., dms., t.l., works, frt. equald .... lb.	.65	–
Lead metal, divd .... lb.	.28	–
Lead monosilicate, milled, bgs., c.l., f.o.b. works .... lb.	.36½	–
coarse, bgs., c.l., same basis .... lb.	.37½	–
Lead naphthenate liq., 24% Pb. dms., frt. alld .... lb.	1.11	–
Lead nitrate tech., cryst., 400-lb. dms., t.l., works .... lb.	.32½	–
Lead peroxide (see Lead dioxide).		
Lead red, 95% Pb_3O_4, or less, bgs. c.l., works .... lb.	.38	.38½
Lead red, 97% Pb_3O_4, bgs. c.l., works .... lb.	.38½	.39
Lead, red, 98% Pb_3O_4, bgs., c.l., same basis .... lb.	.39½	–
Lead silicate (see Lead, white, basic silicate).		
Lead silicochromate, bgs., c.l., works .... lb.	.35	–
Lead sulfate (see Lead, blue, basic sulfate and Lead, white, basic sulfate)		
Lead, white, basic carbonate, bgs., c.l., frt. alld .... lb.	1.30	1.40
Lead, white, basic, silicate, bgs., c.l., same basis .... lb.	.87	–
Lead, white, basic sulfate, bgs., c.l., same basis .... lb.	.85	–
Lecithin, edible, tech., bleached, non-ret. dms., l.c.l., works .... lb.	.36	–
unbleached non-ret. dms., l.c.l., same basis .... lb.	.34	–
edible, tech. bleached, non-ret., dms., t.l., works .... lb.	.28	–
unbleached, non-ret., dms., t.l., same basis .... lb.	.26	–
Lemon oil, Argentina .... kilo	15.00	–
Brazil .... lb.	9.00	–
Calif., USP, dms .... lb.	8.50	9.50
Italian .... lb.	12.50	–
Lemongrass oil, Indian, dms .... kilo	11.25	–
Guatemalan, dms .... lb.	2.25	–
dl-Leucine, dms., 1 kilo works .... kilo	60.00	90.00
Licorice root, whole, bls .... lb.	.40	.50
gran., bls .... lb.	.70	.90
powd., bls .... lb.	.95	–
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).		
Lime, chemical, pebble (quicklime), bulk, 50,000 lbs., works, f.o.b. plants .... ton	39.00	45.00
Lime, chemical, hydrated, bulk, same basis .... ton	46.00	50.00
bgs., same basis .... ton	54.00	57.00
Lime, NF, purif., 100-lb. dms .... lb.	.99	–
Lime oil, dist., Mexican, dms .... lb.	5.60	–
Haitian, dist., dms .... lb.	6.50	–
expressed, dms .... lb.	17.50	–
Lime salts (see Calcium).		
d-Limonene, dms .... kilo	.70	.85
Linalool ex bois de rose oil, dms .... lb.	6.35	–
syn., 98-100% dms., f.o.b. works. . lb.	2.93	–
Linalool oxide, syn., 55-gal. dm. . . . lb.	7.75	–
Linalyl acetate ex bois de rose oil, 90-92%, dms .... lb.	18.00	21.00
syn. 98-100%, dms., f.o.b. works. lb.	3.10	–
Linalyl benzoate, syn., 55-gal. dms. lb.	8.00	–
Linalyl cinnamate, syn., 55-gal. dms .... lb.	59.85	–
Linalyl formate, syn., 55-gal. dms. . lb.	7.75	8.50
Linalyl isobutyrate, syn., 55-gal. dms .... lb.	6.50	6.65
Lindane, 20% formulation, dms., divd .... gal	13.10	–
99.9% tech., dms., t.l., divd .... lb.	6.50	–
Linalyl propionate, syn., 55-gal. dms .... lb.	7.90	–
Linden flowers, with leaves, bls .... lb.	.78	.85
without leaves, bls .... lb.	.90	1.15
Linseed meal (see Oils, Fats & Waxes market report).		
Linseed oil, (see Oils, Fats & Waxes market report)		
Linseed oil fatty acid, dist., dms .... lb.	.60	.67
tanks .... lb.	.53	.62
Litharge, com.l., powd., bgs., c.l., works .... lb.	.34½	.40
Lithium bromide, anhyd., dms., ton lots, divd .... lb.	6.27	–
soln., same basis .... lb.	4.00	4.12
Lithium carbonate, powd., bgs., c.l., t.l., divd .... lb.	1.50	–
Lithium chloride, anhyd., c.l., t.l., divd .... lb.	3.32	3.49
soln., dms., c.l., t.l., divd .... lb.	2.94	2.95
Lithium fluoride, dms., c.l., t.l., divd. lb.	4.90	5.12
Lithium hydride, c.l., t.l., divd. 10,000 or more .... lb.	23.50	–
Lithium hydroxide, monohydrate, dms., c.l., t.l., divd .... lb.	1.88	–
Lithium hypochlorite, c.l., t.l., works lb.	1.07	–
Lithium metal, 1,000-lb. lots or more, divd .... lb.	22.70	–
Lithium nitrate, tech., dms., 100-lb. lots .... lb.	3.25	–
Lithium stearate, bgs., c.l., frt. alld. lb.	1.01	–
Lithium sulfate, anhydrous, t.l. divd. lb.	3.09	–
Lithol red toner, barium, dms., frt. alld .... lb.	3.27	–
calcium, dms., same basis .... lb.	3.50	–
Lithol rubine toner (red 57), resinated, dms., frt. alld .... lb.	5.50	–
Litsea cubeba oil, dms .... lb.	2.50	–
Locust bean gum, powd., bgs .... lb.	6.00	–
2,4-Lutidine, dms., t.l., frt. equald. kilo	5.75	6.25
Lycopodium, 50-lb. dms .... lb.	8.00	10.00
1-Lysine monohydrochloride, feed grade, 10,000 lbs. divd .... lb.	1.35	1.40

M

Mace, East Indian, siftings .... lb.	5.40	–
Slauw #2 .... lb.	5.80	–
Magnesia, tech., light, neoprene-grade, bgs., c.l., t.l., works lb.	.75	[illegible]
Magnesia, syn., tech., chemical-grade, bulk, c.l., t.l. works .... ton	330.00	–
bags, c.l., t.l., same basis .... ton	385.00	–
deadburned, bulk, same basis .... ton	392.00	–
bgs., same basis .... ton	409.00	–
Magnesia, nat., tech., heavy, 85%, 150 mesh, bulk, c.l., t.l., f.o.b. Nev .... ton	232.00	–
90%, 325 mesh, same basis. . ton	265.00	–
Magnesium bromide, 80-lb. dms., hexahydrate .... lb.	2.50	–
Magnesium carbonate, light, tech., bgs., c.l., t.l., works, frt. equald .... lb.	.73	[illegible]
USP, lite bgs., c.l., same basis .... lb.	.74	[illegible]
USP, heavy, bgs., c.l., same basis. . lb.	.83	–
Magnesium chloride, anhyd., 92%, flake or pebble dms., c.l., works .... lb.	.12¾	.15
Magnesium chloride, hydrous, 99%, flake, bgs., c.l., works .... lb.	.14½	–
Magnesium gluconate, 100-lb. dms. f.o.b. works, E. .... lb.	4.25	–
Magnesium hydroxide, NF, powd., dms., c.l., t.l., works frt. equald .... lb.	.78	–
Magnesium lauryl sulfate, tanks, f.o.b. works .... lb.	.22	[illegible]
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more. f.o.b. Freeport, Tex .... lb.	1.53	–
die casting alloys .... lb.	1.29	1.31
Magnesium nitrate, tech., flake. 250-lb. dms., t.l., works .... lb.	.32	–
Magnesium oxide, USP, light, bgs., c.l., works, frt. equald .... lb.	1.65	–
heavy, dms., c.l., same basis. . . lb.	1.54	–
Magnesium oxide, tech. (see Magnesia).		
Magnesium phosphate, tribasic, tech. 60-lb. bgs., f.o.b. .... lb.	1.00	–
Magnesium silicate (see Talc).		
Magnesium silicofluoride, bgs., c.l., t.l. works .... lb.	.1845	[illegible]
Magnesium stearate, bulk, t.l .... lb.	.95	[illegible]
Magnesium sulfate 10% Mg. (epsom salts), tech. bgs., t.l., works .... lb.	.14	–
bulk, same basis .... lb.	.13	–
USP, cryst., bgs., same basis . lb.	.13½	–
USP, cryst., bulk, same basis . lb.	.14½	–
Magnesium sulfate, 17% Mg. (synthetic monohydrate), tech. bgs. t.l., works .... lbs.	.80	–
CP, same basis .... lbs.	1.25	–
Magnesium sulfate, anhydrous, CP bgs., t.l., works .... lbs.	1.75	–
Magnesium sulfate trihydrate, tech., bgs., t.l., works .... lb.	.45	–
Magnesium trisilicate, USP, powd., fib. dms. 5,000-lb. lots .... lb.	.38	–
USP, micronized powd., dms., 375-lb. lots .... lb.	.83	–
Malathion, tech., dms., t.l., works. . lb.	1.62	–
Maleic acid, cryst., powd., drums, 100 kilos, f.o.b. .... kilos	3.20	–
drums, tons, f.o.b. .... kilos	2.60	–
Maleic anhydride, bgs., t.l., works, frt. equald .... lb.	.55	[illegible]
tanks, works, frt. equald .... lb.	.53	–
Malic acid, purif, and food grades. 50-lb. bgs., t.l., c.l., divd .... lb.	.81	[illegible]
Mandarin oil, Brazilian, dms .... lb.	17.75	–
Mandelic acid, dms., 1,000 kilo lots .... kilo	8.00	10.00
Manganese acetate, dihydrate, dms., divd .... lb.	.43½	[illegible]
tetrahydrate, dms., t.l., divd .... lb.	.48	–
Manganese borate printing ink drier. lb.	1.68	[illegible]
Manganese borate, tech., dms .... lb.	.80	[illegible]
Manganese carbonate, chemical grade, 46% Mn. bgs., 20,000-lb. lots or more, works .... lb.	1.05	–
Manganese chloride, anhyd., dms., 20,000-lb. lots or more .... lb.	.61	–
Manganese dioxide, nat., African, grd., 74%-76% MnO_2, 100-lb. bgs., l., works .... ton	200.00	–
84% MnO_2, same basis .... ton	250.00	380.00
Manganese dioxide, syn., cryst., battery grade, 90%-92% MnO_2, 100-lb. bgs., c.l., works .... lb.	.70	[illegible]
chemical, ferrite grade, same basis .... lb.	.49	[illegible]
Manganese gluconate, FCC grade, 100-lb dms., f.o.b. works .... lb.	3.50	–
Manganese hydrate dms., divd .... lb.	.35	[illegible]
Manganese hypophosphite, NF, dms. .... lb.	6.75	–
Manganese metal, electrolytic, No. 1 chip, bulk, c.l., works .... lb.	.33½	–
dms., c.l., works .... lb.	.3435	–
Manganese naphthenate, liq., 6% Mn. dms., divd .... lb.	.67	–
Manganese resinate, fused, 3½% Mn. dms., frt. alld .... lb.	.34¼	–
precip. 6½-7% Mn. dms .... lb.	.42	–
Manganese sulfate, fertilizer grade, run-of-pile, 75%-78% $MnSO_4$, 25 kilo bgs., 50-ton cars, divd. E. of Miss .... ton	280.00	–
bulk, hopper cars, same basis . . ton	245.00	–
Manganese sulfate, 28% Mn, gran., bgs., c.l., t.l., works .... ton	330.00	–
Manganese tallate, liq., 6% Mn, dms., frt. alld .... lb.	.80	–
Mannitol, coml., powd., dms., t.l., works .... lb.	3.02	–
Marjoram, French .... lb.	.86	.89
Egyptian .... lb.	.61	.82
MBT (see 2-Mercaptobenzothiazole).		
MBTS (see Mercaptobenzothiazyl disulfide).		
MDI (see Diphenylmethane 4,4,-di-isocyanate)		
Melamine, bgs., c.l., t.l., 40,000-lb. min., f.o.b. works .... lb.	.51½	.59½
bulk, c.l., t.l., same basis .... lb.	.50	.58
Melamine-formaldehyde resin, g.p., t.l. frt. alld .... lb.	.55	.60
molding compounds, same basis .... lb.	.46½	–
Menhaden oil, crude, tanks, works Atlantic Coast .... lb.	.12	–
Gulf ports, same basis .... lb.	.13	–
Menthol, nat., USP, Brazilian large and regular crystals, spot, cs., bulk .... lb.	6.50	6.75
syn., USP, racemic, 100-450 lbs. lb.	9.00	–
2-Mercaptobenzothiazole, bgs., t.l., works, frt. alld .... lb.	1.25	1.55
Mercaptobenzothiazyl disulfide t.l., dms., works, frt. alld .... lb.	1.33	1.66
Mercuric chloride NF, gran., powd., 100-lb. dms., f.o.b. works. . lb.	8.50	–
Mercuric oxide, red, purif., 100-lb. dms., f.o.b. works .... lb.	7.00	7.25
tech., 100-lb. dms., same basis .... lb.	5.50	7.00
yellow, NF, 100-lb. dms., same basis .... lb.	7.00	7.25
tech., 100-lb. dms., same basis .... lb.	5.50	7.50
Mercurous chloride (see Calomel).		
Mercury, ammoniated (see White precipitate USP XV).		
Mesityl oxide, tanks, divd .... lb.	.46	–
Methacrylic acid, glacial, 99%, dms., t.l., frt. equald .... lb.	.87	–
tanks, works, frt. equald .... lb.	.78	–
d-Methamphetamine hydrochloride, dms .... lb.	12.00	16.00
d-Methamphetamine hydrochloride, dms .... lb.	4.60	7.00
Methanol, syn., barges, f.o.b. producing point, Gulf Coast .... gal.	.28	–
Methenamine (see Hexamethylenetetramine).		
Methionine hydroxyanalogue, dry, 85% activity t.l., frt. alld .... lb.	.86	–
liquid, 88% activity, t.l. frt. alld .... lb.	.88	–
dl-Methionine (see Racemethionine)		
Methoxychlor, 50% wettable powder, dealers, dms .... lb.	2.05	–
Methyl abietate, non-ret, dms., c.l., divd. E. .... lb.	9.40	–
Methyl abietate, hydrogenated, non-ret. dms., l.c.l., same basis .... lb.	10.00	–
Methyl acetoacetate, East, divd. bulk .... lb.	.85	–
Methyl acrylate, tanks, divd .... lb.	66.00	–
Methyl alcohol (see Methanol)		
Methyl amyl alcohol, tanks, divd .... lb.	.55	–
Methyl n-amyl ketone, tks., divd .... lb.	.54½	–
Methyl anthranilate, tech., dms., f.o.b. .... lb.	1.41	2.65
Methyl benzoate, dms., t.l. .... lb.	.25	–
99.9%, perf. grade, dms., t.l. .... lb.	1.65	–
Methyl bromide, dist., tanks, 140,000 lbs. min., frt. alld .... lb.	.56¾	–
Methylcellulose, premium, USP (visc. 400 through 4,000 cps) 50 lb. bags, tl., cl., 30,000 lb., min., divd., zone 1 .... lb.	2.73	–
Methylcellulose, premium USP (visc. 15 cps) 50 lb. bags, tl., cl., 30,000 lbs., divd., zone 1. . lb.	2.85	–
Methylcellulose, (visc. 400 through 4,000 cps) 50 lb. bgs., tl., cl., 30,000 lbs., divd., zone 1. . lb.	2.24	–
Methylcellulose (visc. 15 to 25 cps) 50 lb. bags, tl., cl., 30,000 lb. min., divd., zone 1 .... lb.	2.52	–
Methyl chloride, indust. bulk, tanks, f.o.b. works .... lb.	.22	.26
Methylchloroform (see 1,1,1-Trichloroethane).		
Methyl cinnamate, dms .... lb.	4.65	–
Methyl p-cresol, dms .... lb.	6.00	–
Methyl ethyl ketone, tanks, divd, E. . lb.	.235	–
Methyl eugenol, 25-lb. cns .... lb.	3.55	3.60
Methyl formate, pure, non-ret. dms., works .... lb.	.41	–
tanks, same basis .... lb.	.29	–
tech., tanks, works .... lb.	.31	–
Methyl heptenol, syn., 55-gal. dms. lb.	14.60	–
Methyl heptenone, pure, dms .... lb.	7.30	–
Methyl heptin carbonate, dms .... lb.	45.00	–
Methyl p-hydroxybenzoate (see Methylparaben)		
Methyl ionone, sld., dms .... lb.	7.30	9.40
Methyl isoamyl ketone, tanks, divd. E. .... lb.	.51	–
Methyl isobutyl carbinol (see Methyl amyl alcohol).		
Methyl isobutyl ketone, tanks, divd. lb.	.35	–
divd. zone 2 (Calif.) .... lb.	.38	–
divd. zone 3 (W. of Rockies, excluding Calif.) .... lb.	.41	–
Methyl isoeugenol, 25-lb. cns .... lb.	6.60	10.40
Methyl methacrylate, tanks, divd. . . lb.	.62	–
Methyl naphthyl ketone, cryst., dms .... lb.	14.00	–
Methylparaben, USP, 500 kilograms, f.o.b. .... kilo	10.14	–
tech., 500 kilograms, f.o.b. .... kilo	9.70	–
Methyl parathion, tech., 80%, dms., frt. alld. E. .... lb.	1.65	–
Methyl phenylacetate, dms .... lb.	3.80	5.40
N-Methyl-2-pyrrolidone, tanks, f.o.b. plant .... lb.	1.32	–
dms., c.l., t.l., same basis .... lb.	1.40	–
Methyl rosaniline chloride, USP, 1-lb. cans .... lb.	6.50	–
Methyl salicylate, NF, 1000-lb. dms., t.l., frt. alld .... lb.	1.79	1.94
Methyl violet (see Methyl rosaniline chloride).		
Methyl violet toner, molybdated, PMA, bbls., divd. E. of Rockies. . lb.	3.25	–
Methyl violet toner, tungstated, PTA, bbls., same basis .... lb.	4.70	5.20
4,4,-Methylene dianiline (p,p-di-aminodiphenyl methane) crude, dms., t.l., f.o.b. .... lb.	1.75	–
purif., flake, same basis .... lb.	2.25	–
Methylene di-p-phenylene di-isocyanate (see diphenylmethane 4,4,-di-isocyanate).		
Methylene chloride, tanks, 4,000 gal.-min., consumers, divd .... lb.	.35	–
Methylpentanediol (see Hexylene glycol).		
Methylphenylpryazolone (see 1- Phenyl-3-methyl-pyrazolone-5).		
a-Methylstyrene, f.o.b. shipping pt. . lb.	.44	–
p-Methylnaphthalene, bulk, works. gal.	1.38	–
Methylthionine chloride (see Methylene blue).		
Mica, dry-grd., joint cement, plastic, 50 lb., bgs., c.l., works .... lb.	.07½	–
dry-grd., roofing. 20 to 80 mesh. works .... lb.	.07	–
paint or lacq., wet-grd., 325-mesh, bgs., c.l., f.o.b. works .... lb.	.16¾	–
rubber, bgs., c.l., f.o.b. works .... lb.	.16¾	–
wallpaper, bgs., c.l., f.o.b. works. lb.	.22	–
Microcrystalline wax, petroleum, coating grades, FDA, tanks, works .... lb.	.36½	.46½
laminating grades, FDA, tanks, works .... lb.	.38½	.48
Mineral oil, white, 50-65 vis., USP light tanks, refy .... gal.	2.38	–
65-75 vis., tanks, refy .... gal.	2.42	–
80-90 vis., tanks, refy .... gal.	2.45	–
145-155 vis., tanks, refy .... gal.	2.53	–
USP 180-190 vis., tanks, refy .... gal.	2.54	–
200-210 vis., tanks, refy .... gal.	2.56	–
340-350 vis., tanks, refy .... gal.	2.65	–
Mineral spirits, petroleum, odorless, tanks, New Jersey .... gal.	1.83	1.88
Houston, Tex .... gal.	1.78	1.79
Mineral spirits, petroleum, regular, tanks, New Jersey .... gal.	1.41	1.49
Houston, Tex .... gal.	1.41	1.43
Molybdate orange, bbls .... lb.	1.52	1.95
Molybdenum metal, com.l., powd., 99.8%, dms., works .... lb.	13.50	–
Molybdenum trioxide, CP, dms., works, 24,000 lbs. or more. lb.	5.25	–
tech., chemical, dms., 24,000 lbs. or more, basis .... lb.	2.65	2.85
tech. metallurgical, dms. same basis. lb.	2.65	2.85
Molybdic acid (See Ammonium Dimolybdate)		
Monoammonium phosphate, fert. grade, min. 13% N. 52% P. bulk, c.l., f.o.b. Fla. works .... ton	155.00	–
Monoammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald .... 100 lbs.	54.00	–
food grade, bgs., c.l., t.l., same basis .... 100 lbs.	59.25	–
Mono-tert-butyl-m-cresol, bulk, t.l. . lb.	1.69	–
Monobutylamine, bulk, divd .... lb.	.96	1.00
Monochloroacetic acid, purif. (see Chloroacetic acid, mono).		
Monochlorobenzene, tanks, f.o.b. . lb.	.42½	–
Monoethanolamine, tanks, frt. alld. E. .... lb.	.43	.46
Monoethylamine, 70% aqueous tanks, frt. prepaid, 100% basis. . . lb.	.94	–
anhyd., tanks, same basis .... lb.	.92	–
Monoisopropanolamine, dms., c.l., frt. alld. E. .... lb.	.78	–
tanks, same basis .... lb.	.66	–
Monoisopropylamine, anhyd., dms., c.l., frt. prepaid .... lb.	.79	–
tanks, same basis .... lb.	.76	–
Monomethylamine, anhyd., tanks, contained basis frt. equald .... lb.	.54½	–
25% soln., tanks, frt. alld. 100% basis .... lb.	.57	–
40-60% soln., tanks, frt. equald. 100% basis .... lb.	.63½	–
Monopotassium glutamate, dms., 990 lb. or more, frt. alld .... lb.	2.50	–
Monosodium glutamate, 50-lb. bgs. c.l., t.l., divd .... lb.	.76	.80
100-lb. drums, c.l., t.l., divd .... lb.	.85	–
Monosodium phosphate (see Sodium phosphate, monobasic).		
Montan wax, crude, imp., German . lb.	.55	.57
dom., Calif., bgs., c.l., t.l., f.o.b. shipt. pt .... lb.	.61	–
refd., dom. Calif., same basis .... lb.		
Morphine alkaloid, NF, 25 k lots . . kilo	1018.00	–
Morphine sulfate, USP, 25 k lots . . kilo	850.00	–
Morpholine, dms., c.l., frt. alld. E. . . lb.	1.02	–
tanks, frt. alld., E. .... lb.	.94	–
Muriatic acid (see Hydrochloric acid).		
Musk, syn., ambrette, 25-lb. cns. . . lb.	6.00	7.00
Musk, syn., ketone, dms .... lb.	10.75	–
Musk, syn., xylol, dms .... lb.	3.60	–
Mustard oil, syn. (see Allyl isothiocyanate).		
Mustard seed, Brown No. 1 .... lb.	.20	–
Canadian No. 1 Yellow .... lb.	.21	–
Oriental No. 1 bgs .... lb.	.20	–
Myrcia oil (see Bay oil).		
Myristic acid, coml., pure, t.l., bgs. . lb.	1.30	–
tanks .... lb.	1.12	–
Myristica oil (see Nutmeg oil).		
Myrrh gum, bgs .... lb.	2.25	–

N

Naphtha, high solvency (see Solvent naphtha, petroleum).		
Naphtha, petroleum, cleaners (see Cleaner's naphtha).		
Naphtha, VM&P, petroleum, tanks, New Jersey and New York .... gal.	1.29	1.34
Houston, Tex .... gal.	1.20	–
Naphthalene, crude, dom., 78°, tanks, works .... lb.	.22	–
Naphthalene, phthalic anhydride grade, tanks, works .... lb.	.23½	–
Naphthalene, petroleum, 80°C., f.o.b. .... lb.	.30	.32½
Naphthalene, refd., balls, flakes, whole salers, jobbers, dms., works .... lb.	.65	.77
Naphthenic acid, crude, bulk, works lb.	.30	.43
refined, 220 acid, same basis .... lb.	.60	.90
a-Naphthol, ground, dms., t.l. divd. . lb.	1.61	–
b-Naphthol, tech. flake, 80-lb. bgs., c.l. works .... lb.	1.10	–
Naphthol arylide red toner deep shades, bbls .... lb.	13.40	15.45
light shades, bbls .... lb.	9.20	13.00
2-Naphthol-3,6-disulfonic acid, disodium salt (see R salt).		
1-Naphthol-5-sulfonic acid (see L- acid).		
1-Naphthol-5-sulfonic 8-amino acid (see S acid).		
Naphthylamine sulfonic mixed acid (see Cleve's acid).		
a-Naphthylamine, tanks, f.o.b. works .... lb.	2.10	–
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).		
2-Naphthylamine-4,8 disulfonic acid (see Cassella acid).		
2-Naphthylamine-1-sulfonic acid (see Tobias acid).		
Neatsfoot oil, 20°F, t.l., f.o.b. works dms .... lb.	.52	–
tanks, f.o.b. works .... lb.	.47	–
30°F, t.l., f.o.b. works .... lb.	.52	–
tanks, f.o.b. works .... lb.	.44	–
40°F, dms., t.l., f.o.b. works .... lb.	.48	.49
tanks, f.o.b. works .... lb.	.39	–
Delivered prices apply on shipments within 300-mile radius of Philadelphia, Pa.; other areas, 1¼c. higher; Texas, 2c. higher and West Coast 3c. higher.		
Neomycin sulfate, USP, non-sterile, dms., 50-kilo. lots, activity basis, divd .... kilo.	75.00	–
Neopentyl glycol, slurry, 90%., c.l., t.l., divd .... lb.	.522	–
powder, flake, bgs. t.l., divd. . . lb.	.598	
Nerol, tech., dms .... lb.	5.30	5.75
perf. grade, dms .... lb.	4.60	5.00
Neroli oil, Tunisian, bots .... kilo	2,700.00	–
Nerolidol syn. 55-gal. dms .... lb.	7.05	–
Nerolin, Bromelin .... kilo	7.22	–
Niacinamide, USP, t.l. dms .... kilo.	6.00	–
Niacin NF, dms., 5,000 kilos or more, divd .... kilo	7.50	–
feed-grade, 98-99.5%, bgs., same basis .... kilo.	5.10	5.50
Nickel acetate, dms., 5,000-lbs. to t.l., divd. E. .... lb.	1.82	–
Nickel carbonate, dms., bgs., 5,000-lbs. to t.l., divd. E. .... lb.	3.45	–
Nickel chloride, bgs., 10,000-lbs. to t.l., divd. E. .... lb.	1.19	–
Nickel fluoborate, liq. conc., dms., t.l., divd. E. .... lb.	1.25	–
Nickel metal, electro cathodes, cs., works .... lb.	3.45	–
Nickel nitrate, dms., bgs., t.l., divd. E. .... lb.	1.18	–
Nickel oxide, 75%-78% Ni, dms., 500-lb. lots, f.o.b. works .... lb.	2.60	–
Nickel sulfate, bgs., t.l., divd. E. . . . lb.	.80	.90
Nicotinic acid (see Niacin).		
Nicotinamide (see Niacinamide).		
Nitric acid, 36° Be., 38°Be, 40°Be, 42°Be. tanks, c.l., works NF, 100% basis .... ton	195.00	–
94½% to 98% HNO_3, tanks, works, 100% basis .... ton	280.00	–
o-Nitroaniline, flake, dms., t.l. works .... lb.	1.51	–
molten, refd., tanks, works .... lb.	1.44	–
molten, tech., works .... lb.	1.37	–
o-Nitroaniline, orange toner, bgs., frt. alld .... lb.	1.90	–
p-Nitroaniline, dms., c.l., t.l., 30,000 lb. min., works .... lb.	1.63	–
o-Nitroanisole, 100-kilo lots .... kilo	8.75	–
Nitrobenzene, tanks, f.o.b. .... lb.	.33	.34
o-Nitrochlorobenzene, dms., t.l., c.l., f.o.b. .... lb.	.82	–
tanks, same basis .... lb.	.74	–
2-Nitro-p-cresol, tech., dms., t.l., frt. alld .... lb.	1.75	–
Nitroethane, tanks, divd. E. .... lb.	2.50	–
Nitrogen solutions, direct application, over 32% N, and mgt. type, works .... unit-ton.	1.20	–
direct application, 19-32% N .... unit-ton.	1.26	1.46
Nitrogenous sewage sludge, processed, bulk, f.o.b. Chicago .... unit ton.	4.10	–
NOTE: Price is per unit NH_3 plus $1, per unit a.p.a. bulk, f.o.b. producer.s works, Chicago.		
Nitrogenous tankage, processed, bulk, per unit-ton NH_3, f.o.b. Carrollville, Wisc .... unit ton	7.00	–
f.o.b. Forbes, Mo .... unit ton	6.75	–
expanded, bulk, c.l., per unit-ton N, f.o.b. Forrestdale, R.I. unit ton	8.35	–
Nitromethane, dms., t.l., divd. E. . . . lb.	2.37	–
o-Nitrophenol, dms., f.o.b. works. . . lb.	1.00	–
p-Nitrophenol, dms., c.l., f.o.b. works .... lb.	1.05	1.45
2-Nitropropane, tanks, frt. alld. E. . . lb.	.55	–
m-Nitrotoluene, tech., dms., frt. alld. lb.	1.15	–
o-Nitrotoluene, dms., c.l., f.o.b. .... lb.	.65	–
tanks, same basis .... lb.	.48	.57
p-Nitrotoluene, tech. dms., c.l., works .... lb.	.83	.85
tanks, works .... lb.	.70	–
Nonylphenol, tanks, f.o.b. E. of Rockies, min. frt. alld .... lb.	.49	.53½
Norephedrine hydrochloride (see Phenylpropanolamine hydrochloride)		
Nutmeg oil, dist., East Indian, NF, dms .... kilo	32.00	34.00
Nutmegs, East Indian, whole .... lb.	3.15	–

O

Ochre (see Iron oxide, yellow, nat.)		
Ocotea cymbarum oil dms .... kilo	5.15	5.20
Ocotea, Chinese 90% .... kilo	5.20	–
1-Octadecanol, syn., tanks, f.o.b. . . lb.	.43½	–
l-Octanol, syn., tanks, f.o.b. .... lb.	.70	–
n-Octane, 97% min., tanks, f.o.b. Houston, Tex .... gal.	8.25	–
Octyl alcohol, perfumer's grade, bots., cns .... lb.	1.40	1.75
n-Octyl, n-decyl phthalate, tanks, divd .... lb.	.33½	.37
tert-Octylamine, dms., c.l., t.l., works.	2.60	–
Octylphenol, molten, t.c., works .... lb.	.75	.76½
Oiticica oil, liq. dms .... lb.	.40	–
tanks	.82	–
Oleic acid: dbl.-dist., (white), dms. . . lb.	.46	.59
tanks .... lb.	.38	.44
Oleic acid, s.d. (red) dms .... lb.	.43	.49
tanks .... lb.	.35	.41

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Oleum (see Sulfuric acid, fuming).		
Olibanum gum, tears, bgs .... lb.	2.10	–
Olive oil, edible, Spanish, dms .... gal.	6.00	–
Italian B-type .... gal.	5.40	5.60
Olivine, crude, works .... ton	12.00	–
20 mesh. works .... ton	15.00	–
100 mesh. works .... ton	20.00	–
Opium, USP, gran. powd. 25-kilo lots .... kilo	125.00	–
Orange oil, expressed, USP, Calif., dms., f.o.b. plant .... lb.	1.20	–
expressed Valencia, dms .... lb.	.75	–
Calif., dist., cns. f.o.b. plant .... lb.	1.25	
Florida, dms .... lb.	.60	.65
Brazilian .... kilo	.90	–
West Indian, bitter, NF X, cns., dms .... lb.	13.00	–
Orange peel, bitter, Haitian bls .... lb.	.38	–
Oregano, Greece, 30M .... lb.	2.80	–
Turkey .... lb.	2.80	–
Mexico .... lb.	1.05	–
Origanum oil, Spanish, cns .... kilo	35.00	–
Orris root, Florentine, bls .... lb.	4.00	–
powd., bbls., bxs .... lb.	4.60	5.00
Verona bls .... lb.	3.00	–
powd., bbls., bxs .... lb.	4.60	5.00
Ouricury wax, refd., pure, bgs .... lb.	3.25	3.35
Oxalic acid, bgs., c.l., works .... lb.	.44	–
b-Oxynaphthoic acid dms. works, tech .... lb.	2.55	–
Oxyquinoline base, pure, 1,000 lbs., frt. alld .... lb.	8.00	–
Oxyquinoline sulfate, 100 lbs. frt. alld .... lb.	4.00	–

P

Palladium metal, works. . . . Troy-oz.	119 00	–
Palm oil, (see Oils, Fats & Waxes Market Report)		
Palm oil acid, dbl-dist. dms .... lb.	.31½	–
tanks .... lb.	.30	–
s.d., dms .... lb.	.42	.45
tanks .... lb.	.35	–
Palm kernel oil, bulk, c.i.f., U.S. ports .... lb.	.18½	.19¼
Palmarosa oil, Indian dms .... kilo	42.00	–
Palmitic acid, 90%, tech., bags .... lb.	.53	–
tanks .... lb.	.51	–
Papaverine hydrochloride, NF powd., imp. bulk .... kilo	56.00	–
Paprika, Hungarian, 100 AU bgs. . . lb.	.80	–
Spanish, 110 AU bgs .... lb.	.90	–
Paraffin, fully-refd., 127-130 F., ASTM, tanks, refy	.29	.35
130-135 F., ASTM, tanks, refy.	.33½	.39
140-145 F., ASTM, tanks, refy.	.35	.41½
150-155 F., ASTM, tanks, refy.	.41½	.46
slack wax, 5% oil, tanks refy	.19	–
12% oil, tanks refy	.21	–
20% oil, tanks refy	.16	–
AMP temperatures are an arbitrary 3F higher than ASTP.		
Paraformaldehyde, 91%, flake, bgs. c.l., t.l., divd .... lb.	.29½	–
95%, powd., bgs., c.t., t.l. divd. lb.	.30½	–
Paraldehyde, tech., 98%, 55-gal. dms., t.l., divd. E. .... lb.	.76½	–
tanks, divd. E. .... lb.	.58½	–
Parathion, ethyl, dms., frt. alld .... lb.	1.75	–
Parathion methyl (see Methyl parathion).		
Para toner red, bbls .... lb.	3.75	–
chlorinated, (red 4) kgs .... lb.	3.75	–
Patchouli oil, Indonesian., dms .... kilo	18.50	20.00
Patchouli oil, Chinese .... kilo	19.00	21.00
Peach kernel oil, USP (see Apricot kernel oil).		
Peanut meal (see Oils, Fats & Waxes market report).		
Peanut oil (see Oils, Fats & Waxes market report).		
Pectin dom., NF, citrus, powd., 100-kilo lots divd .... lb.	3.30	3.70
Pelargonic acid, nat., tanks, min. frt. alld .... lb.	.70	–
syn., tanks, f.o.b. frt. alld .... lb.	.70	–
Penicillin, potassium, non-sterile, 200-billion-unit lots, . . . billion units	25.00	30.00
Penicillin, procaine, sterile 50- billion-unit lots, bulk . . . billion units.	36.00	–
Pennyroyal oil, dms .... lb.	10.25	–
Pentachlorophenol, 50-lb. bgs., t.l., f.o.b. Wichita, Kan .... lb.	.65	–
Pentaerythritol, tech., bgs., c.l., f.o.b., frt. alld .... lb.	.71	.72
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).		
Pentaerythritol triacrylate, t.l. dms., f.o.b. works .... lb.	1.50	–
Pentobarbital, dms., 100 lbs. or more, frt. alld .... lb.	7.00	–
Pentobarbital-sodium, dms., 100 lbs. or more, divd .... lb.	14.00	–
Pentylene tetrazol, NF, dms., 200-kilo lots .... kilo	32.00	–
Pepper, black, Brazilian, bgs .... lb.	2.35	–
Lampong, bgs .... lb.	2.37	–
Malabar, bgs .... lb.	2.37	–
Tellicherry, bgs .... lb.	2.45	–
Pepper, red Chinese Fukien rice bgs lb.	.89	–
Haimen, bgs .... lb.	1.00	–
Liling, bgs .... lb.	.76	–
Indian, S-4, bgs .... lb.	.70	–
Pakistan, dundicuts, bgs .... lb.	.43	–
Pepper, white, Muntok, bgs .... lb.	3.05	–
Peppermint leaves, imp., dms .... lb.	2.00	–
Peppermint oil, Madras .... lb.	14.00	–
Midwest .... lb.	15.00	–
Willamette .... lb.	11.00	–
Yakima .... lb.	8.00	–
syn., dms. f.o.b. works .... lb.	7.00	9.00
Brazilian .... kilo	6.50	–
Chinese .... kilo	6.90	–

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Perchloroethylene, dry cleaning grade, distr., tanks, divd. .... lb.	.28½	–
indust., grade, consumers, tanks, divd. .... lb.	.31	–
Perl acid. dms. .... lb.	2.55	–
Permanent red 2B, (red 48), calcium salts, dms., frt. alld. .... lb.	5.25	–
barium salts, same basis .... lb.	5.25	–
Peru balsam, f.o.b. .... lb.	3.25	–
Petitgrain oil, Paraguay .... lb.	5.00	–
Petrolatum, USP, snow white, dms., c.l., refy .... lb.	.375	–
tanks, refy .... lb.	.310	–
USP, soft white, dms., c.l., refy. . lb.	.375	–
tanks, refy .... lb.	.310	–
USP, lily white, dms., c.l., refy. ... lb.	.370	–
Petrolatum, USP, Lily white, tanks, refy .... lb.	.305	–
USP, cream, dms., c.l., refy .... lb.	.385	–
tanks, refy .... lb.	.30	–
USP, soft yellow, dms., c.l., refy. . lb.	.350	–
tanks, refy .... lb.	.285	–
USP, amber, dms., c.l., refy. .... lb.	.345	–
tanks, refy .... lb.	.260	–
Petroleum pitch (see Asphalt, petroleum).		
Petroleum sulfonate, 60-62%, sulfonic cont., HMW, bulk, works . . lb.	.48¾	.49
MMW, same basis .... lb.	.49	–
LMW, same basis .... lb.	.49	.49¼
Prices for 51% sulfonic content 2c per lb. lower on corresponding molecular wts.		
Phenacetin USP, powd., 200-lb. dms., 1,000-lb. lots, divd. .... lb.	2.20	–
100-lb. dms., 1,000-lb. lots, divd. lb.	2.22	2.45
p-Phenetidine, dms., c.l., f.o.b. .... lb.	2.00	–
Phenobarbital, USP, dms., 500-kilo lots., f.o.b. works .... kilo	19.50	–
Phenobarbital-sodium, NF, 500-kilo lots, f.o.b. works .... kilo	27.00	–
Phenol, syn. tanks, frt. equald. .... lb.	.26	.29
p-Phenolsulfonic acid, 65% sol'n., dms., c.l., fob works .... lb.	.64	–
tanks, same basis .... lb.	.58	–
Phenothiazine, indust. grade, 50-lb. bags, c.l., f.o.b. works .... lb.	2.33	–
purif. grade, same basis .... lb.	2.69	–
Phenyl acetate, dms., 100-lb. lots, works .... lb.	1.04	–
Phenylacetic acid, pure cryst., 25-lb. cns. .... lb.	4.50	–
dl-Phenylalanine, dms., 25-kilo lots. .... kilo.	84.00	–
1-Phenyl-3-carbethoxy pyrazolone-5, dms. 200-lb. lots, divd. E. . lb.	3.45	–
m-Phenylenediamine, cast, dms., c.l., t.l., f.o.b.works .... lb.	2.07	–
o-Phenylenediamine, flaked, dms., t.l., f.o.b. works .... lb.	3.25	–
p-Phenylenediamine, flaked, dms., f.o.b. works .... lb.	4.00	–
Phenylephrine hydrochloride, USP 100-kilo lots or more .... kilo.	175.00	185.00
Phenylethyl acetate, dms. .... lb.	3.35	–
2-Phenylethyl alcohol, NF, dms. ... lb.	2.10	2.20
b-Phenylethylamine, dms., 30,000 lbs. or more, frt. alld. .... lb.	1.50	–
Phenylethylphenyl acetate, 25-lb. cns. .... lb.	5.50	6.90
Phenylglyconic acid (see Mandelic acid).		
Phenylhydrazine, 99% min., dms. . . lb.	3.50	–
1-Phenyl-3-methyl-5-pyrazolone, dms., 250-lb. lots divd. E . . lb.	1.80	–
o-Phenylphenol, dms., t.l., works . . lb.	1.35	2.00
p-Phenylphenol, bgs., t.l., 40,000 lbs. or more, works. .... lb.	1.85	–
Phenylpropanolamine hydrochloride, 100-kilo dm. .... kilo	24.00	28.00
Phenylsalicylate, purif. cryst., dms., E. .... lb.	2.75	–
tech., cryst., E. .... lb.	2.25	–
flake, E. .... lb.	2.35	–
Phloxine toner (red 90), dms., frt. alld. .... lb.	1.95	2.05
Phosgene, 1-ton ret. cyls., 5 to 9-cyl. quantities, works. .... lb.	.55	.67
Phosphate rock, Fla., land pebble, run of mine washed, 66-68% b.p.l. bulk c.l. mines .... ton	23.15	–
vessel, Tampa, same basis .... ton	28.00	–
Phosphoric acid, com'l. and tech. grades, 75% tanks, works. .... 100 lbs.	29.00	–
80% tanks, works .... 100 lbs.	31.00	–
85%. N.F. tanks, f.o.b. freight equald. .... 100 lbs.	33.50	–
Food grade prices $2.00 above tech. grade.		
Phosphoric acid, agricultural grade, 52-54% a.p.a., tanks, works .... unit-ton	3.10	–
super, min. 70% a.p.a., same basis. .... unit-ton.	3.45	–
Phosphorus, white (yellow) solid dms., c.l., works, frt. equald. .... lb.	1.00	–
tanks, works, f.o.b. works. . lb.	.91	–
Phosphorus oxychloride, tanks, frt. equald. .... lb.	.40	–
Phosphorus pentasulfide, powd., dms., c.l., works. ... 100 lbs.	50.00	–
tote bins, sellers .... 100 lbs.	45.00	–
Phosphorus pentoxide, dms., t.l., works. .... lb.	.82	–
Phosphorus sesquisulfide, dms., cvs., c.l., works. .... lb.	.38	–
Phosphorus trichloride, dms., c.l., works. .... lb.	.40	–
tanks, works. .... lb.	.35	–
Phthalic anhydride, flake, c.l., t.l., dms., frt. equald. .... lb.	.30	–
molten, tanks, same basis .... lb.	.27	–
Prices 1-1½c. per lb. higher on the West Coast		
Phthalimide, flake, works .... lb.	.85	–
Phthalocyanine blue toner, red shade, bbls., frt. alld. E. of Rockies ..... lb.	9.45	
green shade, same basis .... lb.	9.30	
resinated, bbls., same basis .... lb.	9.10	
Phthalocyanine blue toner, water dispersable, bbls., same basis. .... lb.	9.45	17.30
Phthalocyanine green toner, all grades, bbls., frt. alld. E. of Rockies. .... lb.	9.30	14.00
Phthalocyanine green toner, resinated, bbls., same basis. .... lb.	8.85	9.45
Phthalylsulfacetamide, dms., 500- kilo lots. .... kilo.	6.61	–
Picolines, refd, mixed, bulk .... kilo	2.81	–
Picric acid, pure paste, 25-lb. ctns., c.l., dry basis, f.o.b. Charlotte, N.C. .... lb.	6.00	–
tech., paste, 25-lb. ctns., t.l., dry basis, f.o.b. Charlotte, N.C. . . lb.	5.00	–
Pigment green B, kgs. .... lb.	2.20	–
Pilocarpine hydrochloride, USP, dms. .... kilo.	1,500.00	2,000.00
Pimento see Allspice		
Pimento leaf oil, dms. .... lb.	13.90	–
Pine oil, 80% min. alcohol content, bulk, f.o.b. works .... 100 lbs	47.00	53.00
dms., c.l., t.l., same basis .... 100 lbs	51.00	54.00
a-Pinene, perfume grade .... kilo	1.62	–
tech. grade .... lb.	.18	.23
b-Pinene, perfumery grade. tanks. . kilo	2.30	–
tech. grade. tanks .... lb.	.35	.40
Piperazine, anhyd., dms., t.l., frt. alld. E. .... lb.	1.80	–
Piperazine citrate, 36%, dms., 1,100-lb. lots, frt. alld. .... lb.	2.25	2.35
Piperazine dihydrochloride, 53%, dms., t.l., frt. alld. .... lb.	2.00	–
Piperazine hexahydrate, 44%, dms., 1,100-lb. lots, frt. alld. .... lb.	1.60	–
Piperazine phosphate, 42%, dms., t.l., frt. alld. .... lb.	1.80	–
Piperidine dist. 98% min., dms., c.l., t.l., works .... kilo.	6.92	–
Piperonyl butoxide dms., divd. E. . . lb.	5.00	–
Platinum, metal, works ...... Troy oz.	480.00	–
Polycarbonate resin, pellets, nat., t.l., frt. alld .... lb.	1.84	1.86
Polyester resin, unsaturated, g.p., orthophthalic, bulk, tankcars, frt. alld .... lb.	.51	.53
isophthalic, same basis .... lb.	.56	.62
Polyethylene resin, high-density, blow molding, g.p., hopper cars, frt. alld. .... lb.	.44	.52
injection molding, g.p., hopper cars, frt. alld. .... lb.	.43	.46
extrusion, g.p., hopper cars, same basis .... lb.	.47	.48
wire and cable, nat., hopper cars, same basis. .... lb.	.54	.65
wire and cable, black, same basis .... lb.	.65	.75
Polyethylene resin, low-density, film liner, hopper cars, t.l. alld . . lb.	.35	.36
clarity film, hopper cars, frt., alld. .... lb.	.35	.37
pallet shrink film, hopper cars, same basis. .... lb.	.35	–
extrusion coating, hopper cars, same basis. .... lb.	.38	.42
g.p., hopper cars, same basis . lb.	.37	.38
Polyethylene linear low-density g.p. resin	.36	.40
blown film resin	.40	.43½
cast film resin	.40	.45
Polyethylene resin, low-density injection molding, g.p., hopper cars, same basis .... lb.	.45	.48
line wire, CATV, power cable. . lb.	.70	1.15
wire and cable thermoplastic high-voltage, natural color, same basis .... lb.	.80	.90
wire and cable, XLPE low voltage, 14% carbon black, same basis .... lb.	.68	.73
wire and cable jacketing, black lb.	.60	.61
Polymyxin sulfate, USP, bulk, 50-billion units min. ...... million units	.62	–
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works. .... lb.	.73	–
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works. .... lb.	.73	–
Polypropylene resin, homopolymer, g.p., nat., t.l., frt. alld. ..... lb.	.45	.48
copolymer, med. impact, nat., same basis .... lb.	.50	.56
high impact, same basis .... lb.	.53	.60
Colored material 6c. per lb. higher for each grade.		
Polystyrene resin, cryst., nat., hopper cars, frt. alld. .... lb.	.48	–
impact, nat., hopper cars, same basis .... lb.	.51	–
high heat, high impact, nat., hopper cars, same basis .... lb.	.52	–
expandable beads (EPS), pkging grade, 1,000-lb. lots .... lb.	.69	–
modified, same basis .... lb.	.73	–
Polyvinyl alcohol, fully hydrolyzed, medium viscosity, bgs., t.l., divd .... lb.	1.00	1.05
partially hydrolyzed, medium viscosity, bgs., t.l., divd. .... lb.	1.05	–
Polyvinyl chloride resin, g.p., homopolymer dispersion, bgs., t.l., divd .... lb.	.50	–
g.p. suspension, bulk, same basis .... lb.	.36	–
pipe grade, bulk, same basis .... lb.	.47	–
film grade, bulk, same basis .... lb.	.37	.47
Polyvinyl chloride, g.p. copolymer dispersion, same basis .... lb.	.58	.61
g.p. copolymer suspension, same basis .... lb.	.45	.49
Poppyseed, Dutch, bgs. .... lb.	.59	–
Turkey, bgs. .... lb.	.53	–
Potash agricultural (see Potassium muriate).		
Potash, caustic, liq., 45% basis, tanks, works. .... 100 lbs.	13.00	–
West Coast, 50% basis, tanks, ex terminal .... 100 lbs.	18.06	–
reg. flake, 88-92%, 400-lb. dms., c.l., works .... 100 lbs.	42.35	–
Potassium acetate, NF, gran., dms., t.l. works E. .... lb.	.90	1.31
Potassium bicarbonate, tech., gran., bgs., c.l., works .... lb.	.31½	–
Potassium bicarbonate, USP, gran., dms., t.l. .... lb.	.72	–
Potassium bichromate, gran., 400-lb. dms., c.l., t.l., works ...... lb.	.48	–
Potassium bifluoride, tech., dms., t.l., works, frt. equald .... lb.	.45	.49
Potassium bitartrate, NF, gran., powd., bgs. .... lb.	.90	1.20
Potassium borohydride, powd. dms., 100-1,000 lbs., works .... lb.	18.00	20.00
Potassium bromate, gran., powd., 200-lb. dms., c.l., f.o.b. works .... lb.	1.06	–
Potassium bromide, NF, gran., dms., c.l. f.o.b. works .... lb.	1.12	–
Potassium carbonate, liq., 47% K_2CO_3, tanks, t.w., works... 100 lbs.	14.60	–
dms., c.l., t.l., works. ..... 100 lbs.	20.65	–
calcined, 99-100% K_2CO_3 hopper cars or trucks, works .... 100 lbs.	32.50	–
bgs., c.l., t.l., works..... 100 lbs.	35.20	–
drums .... 100 lbs.	36.40	–
Potassium carbonate, gran., purif., 400-lb. dms., 5-dm. lots. . . lb.	.40	.46
Potassium chlorate, cryst., dms., c.l., works .... lb.	.14½	–
powd., dms., c.l., works .... lb.	.30	–
purif., gran., 325-lb. dms., f.o.b. shipping point .... lb.	.40	–
Potassium chloride, chemical grade, 99.95% KCl, bulk, c.l., f.o.b works .... ton	105.00	–
USP cryst. dms .... lb.	1.12	–
USP gran., dms .... lb.	.67	–
USP powd., dms .... lb.	.67	–
Potassium chloride, agricultural (see Potassium muriate).		
Potassium chromate, purif., cryst., dms., works. .... lb.	.57	–
Potassium citrate, NF, gran., 200-lb. dms., frt. alld. .... lb.	.93½	–
Potassium cyanide, dms., 20,000-lb. lots or more, f.o.b. works . . lb.	1.32	–
Potassium dichromate (see Potassium bichromate).		
Potassium fluoborate, tech., dms., c.l., t.l., works, frt. equald. .... lb.	1.40	1.42
Potassium fluoride, anhyd., dms., t.l. .... lb.	1.68	–
Potassium gluconate, dms., t.l., f.o.b. works .... lb.	1.45	–
Price W. of Denver 4c. per lb. higher.		
Potassium guaiacolsulfonate, 300-lb. dms., 600 lbs. or more frt. equald. .... lb.	2.10	–
Potassium hydroxide, tech. (see Potash, caustic).		
Potassium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald. .... lb.	1.31	1.33
Potassium iodide, USP, gran., cryst., dms., 1,000-lb. lots divd. . . lb.	10.72	12.39
ACS grade truckload .... lb.	11.32	13.55
Potassium-magnesium sulfate, std., bgs., works .... ton	59.00	–
basis 40% K_2SO_4 and 55% $MgSO_4$ bulk, works ...... ton	67.00	–
Potassium metabisulfate, gran., dms. t.l. .... lb.	.44	–
Potassium muriate, 60-62.4% min. K_2O, std., bulk, c.l., frt. equald., f.o.b. Sask., Canada .... ton	52.00	53.00
soluble, fine std., f.o.b. Sask. .... ton	53.50	54.50
coarse, f.o.b. Sask. .... ton	57.00	58.00
gran., f.o.b. Sask. .... ton	58.50	59.50
Potassium nitrate, fert. grade, std., 50-ton c.l., divd. SE. .... ton	267.00	274.00
prilled .... ton	277.00	284.00
tech., gran., bgs., c.l., min. 50 tons, divd. .... ton	470.00	–
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., frt. equald. .... lb.	2.54	–
Potassium pentaborate, gran., bgs., c.l., works. .... lb.	1.01	–
dms., same basis. .... lb.	1.06	–
Potassium pentaborate powder 15c. per lb. higher.		
Potassium perchlorate, dms. c.l., works. .... lb.	.78	–
Potassium permanganate, free flowing, bulk, hopper trucks, works. .... lb.	1.09	–
50-kg. dms., same basis ..... lb.	1.20	–
150-kg. dms., same basis ..... lb.	1.17	–
Potassium permanganate, USP, 50-lb. kgs., works, c.l., t.l .... lb.	1.38	–
Potassium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant .... cwt.	78.80	–
c/t same basis .... cwt.	72.50	–
Potassium pyrophosphate tetrabasic, bgs., c.l., t.l., works, E., frt. equald. .... 100 lbs.	63.75	64.00
liquid, bulk .... 100 lbs.	48.00	49.50
Potassium salicylate, USP, gran., 200-lb. dms., 2,000 lbs. or more, works, frt. alld. .... lb.	1.52	–
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis ..... lb.	1.42	–
Potassium silicate, soln., 29.8-30.2 Be., 2.5 ratio, t.c., t.t., works. .... 100 lbs.	18.90	–
dms., c.l., t.l., works. 100 lbs.	25.90	–
Potassium silicate, 40-40.5 Be., 2.1 ratio, t.c., t.t., works... 100 lbs.	25.05	–
40-40.5 Be., 2.1 ratio, dms., c.l., t.l., works. .... 100 lbs.	32.05	–
Potassium silicate, electronics grade, 30-30.4 Be., 2.1-2.2 ratio, t.c., t.t., works .... 100 lbs.	26.10	–
dms., c.l., t.l., works. 100 lbs.	33.10	–
solid or glass, 2.15 ratio, dms., c.l., t.l., works .... 100 lbs.	53.30	–
solid or glass, 2.5 ratio, dms., c.l., t.l., works	45.65	–
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of K_2O.		
Potassium silicofluoride, bgs., c.l., t.l., frt. equald. .... lb.	.11½	.15
Potassium-sodium tartrate, NF, gran. or powd. dms. .... lb.	.80	1.20
Potassium sorbate, t.l. dms., divd. . lb.	2.50	3.10
Potassium stannate, dms., frt. alld. lb.	N.A.	–
Potassium sulfate, agricultural grade, min. 50% K_2O std., bulk, c.l., f.o.b. works .... ton	150.00	160.00
Potassium sulfate, gran., purif. 400-lb. dm. .... lb.	.86	–
Potassium tetraborate, gran., bgs., c.l. works .... lb.	1.10	–
dms., same basis .... lb.	1.15	–
Potassium tetraborate powder 15c. per ton higher		
Potassium thiocyanate, USP, cryst., 225-lb. dms., 5-dm. lots. . lb.	4.01	–
tech., cryst., dms., t.l. .... lb.	.62	–
Potassium titanate, ctns., c.l., works .... lb.	.71¾	–
Potassium-titanium fluoride, tech., dms., t.l., works, frt. equald lb.	1.24	1.59
Potassium-zirconium fluoride, tech., dms., t.l., works, frt. equald. .... lb.	.78	–
Prednisone USP, dms., 5 kilos or more .... gram	1.03	–
Prednisolone acetate, USP, dms., 5 kilos or more .... gram	1.12	–
Prednisolone, anhyd., USP, dms., 5 kilos or more .... gram	1.12	–
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld. .... lb.	4.95	5.15
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld. .... lb.	4.95	5.50
Propionaldehyde, tanks, f.o.b. . . . lb.	.35½	–
Propionic acid, syn., pure, tanks, divd E. .... lb.	.33	.34½
n-Propyl acetate, tanks, divd ..... lb.	.53½	–
n-Propyl alcohol, tanks, divd. ..... lb.	.42	.44
n-Propyl gallate dms., 100 to 2,000-lb. lots, divd. .... lb.	11.50	–
n-Propyl-p-hydroxybenzoate, USP, 500 kilos .... kilo	10.80	–
tech., 500 kilos, f.o.b. .... kilo	10.36	–
Propyl paraben (see n-Propyl-p-hydroxybenzoate)		
Propyl thiouracil, dms., 50-kilo lots or more .... kilo.	55.00	–
n-Propylamine, dms., c.l., divd. .... lb.	.75	.80
Propylene, polymer grade, f.o.b. Tex. and La. Gulf Coast points . lb.	.17¼	–
chemical grade same basis . . . lb.	.15¾	.16
Propylene glycol, indust., tanks, f.o.b. lb.	.40	.41
USP, tanks, f.o.b. E .... lb.	.43	.44
Propylene glycol monomethyl ether, tanks, divd. E. .... lb.	.49	–
Propylene oxide, tanks, f.o.b. works, frt. equald. .... lb.	.47½	–
Psyllium seed, USP powd bgs. ..... lb.	1.50	1.75
Pumice, dom., fine, 4F-0, bgs., ton lots .... ton	270.00	–
medium, 0½-1½, bgs., ton lots . ton	300.00	–
coarse, 2-extra coarse, bgs., ton lots. .... ton	300.00	–
Pumice, imp., Italian, fines, bgs., ton lots f.o.b. East Coast.... ton	280.00	–
medium, bgs., ton lots. f.o.b. East Coast .... ton	350.00	–
coarse, bgs., ton lots f.o.b. East Coast .... ton	300.00	–
Pyrazolone red (red 38), dms., works. .... lb.	13.00	15.45
Pyrethrum flowers, fine grd. 0.9% pyrethrins, ton lots, frt. alld. lb.	1.91	–
Pyrethrum, purif., 20% pyrethrins, dms., works. .... lb.	37.50	37.75
Pyridine, refd., 2-deg., c.l., works dms. .... kilo	5.90	–
tanks .... kilo	5.70	–
Pyridoxine hydrochloride, USP, 100 kilos or more, divd. ...... kilo.	36.00	–
Pyrites, Canadian 48-50% S. mines .... long ton	4.50	6.00
Pyrogallic acid (see Pyrogallol)		
Pyrogallol, 100-lb. dms., 1,000-lb. lots, divd .... lb.	13.70	15.25

Q

Quassia chips .... lb.	.57	–
Quinacridone maroon, dms., frt. alld. .... lb.	27.00	35.20
red, dms., frt. alld. .... lb.	24.25	32.30
violet, dms., frt. alld. .... lb.	24.90	–
Quince seed, bgs. .... lb.	2.00	2.75
Quinidine sulfate, USP, 1,000-oz. dms., 2,000 oz. or more. . oz.	4.20	4.25
Quinine hydrochloride, NF, 1,000-oz. dms., 2,000 oz. or more. . oz.	2.45	2.50
Quinine sulfate, USP XVIII, 1,000-oz. dms., 2,000 oz. or more. . oz.	2.30	2.50
Quinoline, dms., t.l., frt. equald. . . . lb.	1.49	–
tanks, same basis .... lb.	1.43	–

R

R salt tech., 304 molecular wt. .... lb.	2.12	–
Racemethionine, USP, 50-250 kilos .... kilo	6.80	–
250-500 kilos .... kilo	6.60	–
500 or more kilos .... kilo	6.50	–
feed grade, 99% min., c.l., t.l. ... lb.	1.07	–
Repeseed oil, dms. .... lb.	.58½	.62½
Rauwolfia serpentina root, powd. bls., dms. .... kilo.	22.00	–
Red carmine, No. 40 (see Carmine No. 40)		
Red precipitate. (see Mercuric oxide, red).		
Reserpine, USP, cryst., bots. ... gram.	.40	.42½
Resorcinol tech., bgs., t.l., works divd. .... lb.	3.96	–
Resorcinol, USP, cryst., dms. 50 kilos or more, works. .... kilo.	9.35	–
powd. dms., same basis .... kilo.	9.90	–
Resorcinol monoacetate, dms., 1,000 lbs. or more .... lb.	1.98	–
Rhodamine red toner, molybdated, PMA, dms., works .... lb.	9.25	–
tungstated, PTMA, dms., f.o.b. works .... lb.	11.60	14.00
Rhodinol, 25-lb. cns. .... lb.	105.00	108.10
syn., dms. .... lb.	16.25	–
Rhubarb root, India, whole, bgs. .... lb.	.45	.56
powd., bgs. .... lb.	.51	.70
Riboflavin, feed grade, 25 kilos, divd. .... kilo.	34.60	–
Riboflavin, USP, 25 kilos, divd. .... kilo.	48.50	–
Riboflavin 5-phosphate-sodium, 25-kilo lots. .... kilo.	108.00	–
Rice bran oil, refined dms. t.l ..... lb.	1.25	–
Ricinoleic acid (see Castor oil acids, split).		
Rochelle salt (see Potassium-sodium tartrate).		
Roofing pitch (see Coaltar pitch, roofing.)		
Rose oil, nat., NF, Bulgarian, otto. bots. .... kilo.	5,700.00	–
Turkish, otto., bots. .... kilo.	6,500.00	7,500.00
Rosemary oil, NF, Spanish, dms. . kilo	9.00	11.00
Tunisian, dms. .... kilo	15.00	17.50
Rotenone resin, 30-45%, 100-lb. dms. works. .... unit-lb.	.21	.23

S

Saccharin NF, gran., soluble, dms. 1,000-lb. lots, frt. alld. .... lb.	2.50	2.75
Saccharin NF, powd., soluble, dms., less than 20,000-lb. lots, frt. alld. . lb.	3.75	–
Safflower oil, non-break. tanks, N.Y. . lb.	.50	–
edible dms., N.Y., divd. .... lb.	.78	.80
Sage leaves, Dalmatian, No. 1, bgs. lb.	1.95	–
Albanian, bgs. .... lb.	1.65	–
Turkish .... lb.	1.25	1.30
Sage oil, Clary, French, bots. ..... kilo	165.00	180.00
Dalmatian, cns. .... lb.	14.50	–
Spanish, cns. .... kilo	19.00	21.00
Salicylaldehyde, tanks, f.o.b. ..... lb.	3.60	–
Salicylamide, NF, gran., powd., dms., 2,000-lb. lots, one ship. ... lb.	1.07	1.10
Salicylic acid, tech., dms., c.l., t.l., works .... lb.	1.23	1.41
USP, cryst., dms., 1,000 lbs. or more. .... lb.	1.33	1.63
USP, powd., dms., 1,000 lbs. or more. .... lb.	1.68	–
Salol (see Phenylsalicylate).		
Salt, evaporated, common, 80-lb. bgs., c.l., t.l., North, works . . 80 lbs.	4.02	–
bulk, same basis .... ton	60.00	61.20
chemical grade, same basis . . 80 lbs.	4.30	–
Salt, rock, medium, coarse, same basis. .... 80 lbs.	2.70	–
bulk, same basis .... ton	18.00	25.00
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis, f.o.b. works E ton	65.00	98.00
same basis W .... ton	90.00	99.00
Sandalwood oil, E. Indian .... kilo	185.00	–
Indonesia .... kilo	102.00	–
Sarcosine, tech., tanks, works, frt. equald. .... lb.	.50	–
Schaeffer's salt, paste, dms., 100% basis, works. .... lb.	2.59	–
Scopolamine hydrobromide, USP, 100-oz. lots bots. .... oz.	36.00	46.50
Sebacic acid, CP, bgs., c.l., works. . lb.	1.95	–
purif., bgs., c.l., works. .... lb.	1.84	–
Sedlitz mixture, dms., 5,000-lb. lots. lb.	.30½	–
Selenium, powd., 99.99% Se, dms., divd. .... lb.	13.00	–
com'l., 99.5% Se. same basis. ... lb.	10.00	15.00
Senna leaves, Alexandria, whole and half, bls. .... lb.	.75	.80
Tinnevelly No. 1, bls. .... lb.	.70	.71
powd., bbls., bxs. .... lb.	.90	1.10
Sesame oil, USP, dms., f.o.b. .... lb.	1.00	1.20
Sesame seed, Central American, hulled, bgs. .... lb.	.55	.56
Sienna pigment, burnt, paper bgs., l.c.l., works. .... lb.	.19½	.26½
raw, paper bgs., l.c.l., works. ... lb.	.18¼	.23¾
Silica, amorph. dry-grd., bgs., c.l., works 93%, 200 mesh. . . ton	31.00	32.50
98%, 200 mesh .... ton	32.00	33.50
93%, 97%, 325 mesh. .... ton	34.50	35.50
98.5%, 325 mesh. .... ton	37.00	–
99.5%, 325 mesh. .... ton	51.50	54.50
Silica, dry-grd., bgs., c.l., works, 99.9%, 400 mesh, micronized. ...... ton	72.00	75.50
99% under 15 microns, micronized. .... ton	79.50	82.50
99% under 10 microns, micronized. .... ton	104.00	105.00
Silica, hard-quartz, 99.6% SiO_2, 325 mesh, bgs., c.l., works. . . ton	37.00	–
140 mesh, bgs., c.l., works. . . ton	34.75	–
Silicon tetrachloride, tech., dms., c.l., works. .... lb.	.50	–
tanks, works. .... lb.	.38	–
Silver bullion, ingots, cs., Troy ... oz.	5.35	–
Silver cyanide, 80% Ag 500-oz. lots oz.	4.2825	–
Silver nitrate, ACS, 63.2 Troy oz. AG/100 avoir. oz. $AgNO_3$ .... oz.	3.203	–
Soapbark, crushed, bls. .... lb.	1.00	–
powd., bls. .... lb.	1.35	1.85
Soda ash, dense, 58%, 100-lb., paper bgs c.l., works, f.o.b. ... ton	120.00	–
bulk, c.l., same basis. .... ton	83.00	–
light 58%, 100-lb., paper bgs., c.l., same basis. .... ton	150.00	–
bulk, c.l., same basis. .... ton	123.00	–
Soda, caustic, liq., 50%, sellers tanks, Gulf Coast works, f.o.b., frt. equal., 76% Na_2O .... ton.	175.00	195.00
73%, same basis. .... ton.	205.00	225.00
flake, 76%, 400-lb. dms, c.l, works . . ton.	500.00	570.00
solid, 76%, 700-lb. dms, c.l, works. .... ton.	520.00	570.00
gran., 76%, 450-lb. dms, c.l, works. .... ton.	520.00	–
beads, 76%, 400-lb. dms., c.l., works. .... 100 lbs.	27.50	26.50
Prices for liq. rayon-type, $15 ton higher. Prices in West 70c. higher for solid, and $20-$30 ton higher for gran. and beads.		
Soda, sal, conc., bgs., c.l. works .... 100 lbs.	3.35	3.85
Sodium acetate, anhyd., bgs., c.l., f.o.b. works. .... lb.	.54	–
Sodium acetate, USP, 60%, gran. 100-lb. dms., c.l., works. .... lb.	.57	–
Sodium alginate, NF, white powd., dom., 300 lbs. or more. ... lb.	6.00	6.75
Sodium p-aminosalicylate, dms., 100-lb. lots or more, f.o.b. works. .... lb.	4.73	–
Sodium antimonate, bgs., c.l., divd. E. lb.	1.49	1.50
Sodium ascorbate, USP, dms., 100 kilos .... kilo.	9.30	10.50
Sodium benzoate, tech., bgs., c.l., t.l., frt. alld. .... lb.	.70½	–
Sodium benzoate, USP, 50-lb. bgs., c.l., t.l., frt. alld. .... lb.		
ton-lots, same basis .... lb.	.83½	–
100-lb. dms., c.l., t.l., same basis. lb.	.86½	–
ton-lots, same basis. .... lb.	.89	–
	.92	–
Sodium bicarbonate, USP, powd., reg. grade, bgs., c.l., t.l., works, frt. equald. .... 100 lbs.	17.05	–
coarse, same basis .... 100 lbs.	18.05	–
fine, same basis .... 100 lbs.	17.20	–
gran., same basis. .... 100 lbs.	17.85	–
gran., fine, same basis .... 100 lbs.	17.80	–
Sodium bichromate, gran., bgs. c.l., t.l., works, frt. equald. .... lb.	.57	–
Sodium bifluoride, 400-lb. dms., c.l., frt. equald. .... lb.	.78	–
100-lb. bgs., c.l., same basis. ... lb.	.78	–
Sodium bisulfate, bulk, c.l., works. . . ton	175.00	–
dms., c.l. .... ton	13.00	–
Sodium bisulfite, anhyd. bgs., c.l., t.l., works, East .... 100 lbs.	28.50	–
works, West .... 100 lbs.	32.00	–
Sodium bisulfite, soln., 38%, bulk, 100% basis, works, East ..... 100 lbs.	20.60	–
soln., 100%, bulk, works, West 100 lbs.	20.00	–
photographic grade, 43% soln., works .... 100 lbs.	21.90	–
Sodium borate NF, gran., bgs., c.l., works. .... lb.	.51	–
powd., same basis .... lb.	.52	–
Sodium borohydride, powd., dms., 1000-5000 lbs. works .... lb.	19.86	21.90
Sodium borohydride, stabilized water soln., 12% $NaBH_4$, 100% basis, 3000 gal. tankwagon, works. lb.	17.45	–
Sodium bromide, 99%, gran., 400-lb. dms., f.o.b. works .... lb.	1.04	–
Sodium carbonate, decahydrate, bgs, c.l., t.l., works .... ton.	284.00	–
Sodium carbonate, cryst. monohydrate (see Soda, ash)		
Sodium carbonate, monohydrated, bgs., c.l., t.l., works .... ton	392.00	–
Sodium carboxymethyl cellulose (see CMC.)		
Sodium chlorate, crystal, bulk, t.c., t.t., delivered, N.E. .... ton	330.00	–
delivered, S.E. .... ton	335.00	–
Sodium chlorate, cryst., 450-lb. dms., c.l., works. E. .... lb.	.27	–
Sodium chloride, tech. (see Salt.)		
Sodium chloride, USP, gran., bgs. . lb.	.29	–
Sodium chlorite, tech., dms., c.l., works .... lb.	1.17	1.27
Sodium chromate, anhyd., dms., c.l., t.l., works .... lb.	.67	–
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works .... lb.	.64	–
Sodium citrate, gran., anhyd., 200-lb. dms., c.l., t.l., N.Y. .... lb.	1.95	–
Sodium citrate, USP, gran., dihydrate, 100-lb. bgs., t.l., f.o.b. shipping point. .... lb.	.74½	–
Sodium cyanate, dms. 1,000-lb. lots, works .... lb.	.85	–
Sodium cyanide, briquettes or gran., 99% min., 200-lb. dms, min., divd. .... lb.	.71	–
Sodium diacetate, anhyd., dms., c.l., works. .... lb.	.68	–
Sodium diacetate, FCC, 50-lb. bgs., t.l., divd. E. of Rockies .... lb.	.61	.67
Sodium diacetate, tech., 50-lb. dms., c.l., works .... lb.	.52	–
Sodium erythorbate, powd., gran., t.l. or mixed t.l., f.o.b. shipping point .... lb.	2.60	2.85
Prices W. of Denver 2c. per pound higher.		
Sodium ferrocyanide, bgs, t.l., works. .... lb.	.60	–
Sodium fluoborate, tech., gran., dms., t.l., works, frt. equald. ..... lb.	1.77	–
Sodium fluoride, white, 97%, 400-lb. dms., c.l., works, frt. equald. . lb.	.6345	–
100 bgs., c.l., same basis. ... lb.	.60	–
USP powd., 200-lb. dms., t.l., f.o.b. shipping point ...... lb.	4.69	–
Sodium formate, bgs., c.l., works . . lb.	.20	–
Sodium gluconate, tech., 50-lb. bgs., 2,500 lbs. or more frt. alld. lb.	.60	–
Sodium hydride, oil dispersion, 60% NaH, 167-lb. dms., 10 dms., works. .... lb.	1.86	–
Sodium hydrosulfide. (see Sodium sulfhydrate.)		
Sodium hydrosulfite, dms., c.l., t.l., f.o.b. shipping point E .... lb.	.84	–
Sodium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald. .... lb.	.98	1.08
Sodium hydroxide, tech (see Soda, caustic.)		
Sodium hypophosphite, EN grade, 300 lb. dms f.o.b. works .... lb.	1.425	1.50
110 lb. dms. .... lb.	1.47	1.52
Sodium hyposulfite (see Sodium thiosulfate).		
Sodium iodide, USP, cryst, 300- to 800-lb. lots. dms. frt. equald. .... lb.	14.72	–
Sodium lauryl sulfate, 30%, tanks, f.o.b. works .... lb.	.29	.32
Sodium lignin sulfonate, bgs., c.l., works. .... 100 lbs.	25.50	–
Sodium metabisulfite (see Sodium bisulfite).		
Sodium metaborate, octahydrate, gran., bgs., c.l., works .... lb.	.38	–
tetrahydrate, gran, bgs, c.l., works. .... lb.	.49	–
Sodium, metallic, 12-lb. bricks, dms., c.l. works .... lb.	.83	–
fused, dms. 24,000-lb. lots or more, works. .... lb.	.67	–
tanks, works .... lb.	.70	.80
Sodium metaphosphate, tech. bgs., c.l., f.o.b. shipping pt. frt. equald .... 100 lbs.	61.50	–
food grade, bgs. c.l. f.o.b. frt. equald.	66.25	–
Sodium metasilicate, anhyd., bgs., c.l. works. .... 100 lbs.	27.25	–
bulk, c.l., works .... 100 lbs.	25.30	–
pentahydrate, bgs., c.l., f.o.b. shipping point. .... 100 lbs.	18.95	–
bulk, c.l. works. .... 100 lbs.	17.20	–
Sodium molybdate, anhyd., dms. f.o.b. works, 100 lbs and over. . . lb.	4.87	–
cryst., dms., c.l., same basis. ... lb.	4.12	–
Sodium naphthionate, dms., c.l., t.l., f.o.b. works. .... lb.	2.00	–
Sodium Nitrate, USP, bgs., c.l., f.o.b. frt. equald. .... 100 lbs.	34.50	–
Sodium nitrate, dom., industrial, bgs., c.l., works. .... ton	284.00	292.00
bulk, c.l., works. .... ton	250.00	–
imp., coml., 100-lb. bgs., c.l., Atl., or Gulf whse. .... ton	205.00	214.00
bulk, c.l., same basis. .... ton	182.00	–
imp., agricultural, bulk, c.l., same basis .... ton	140.00	–
Sodium nitrite, USP, dms., c.l., works, frt. equald. .... 100 lbs.	37.25	–
Sodium orthosilicate, tech., anhyd., bgs., c.l., works ..... 100 lbs.	34.50	–
Sodium orthosilicate, tech., hydrated, flake, dms., c.l., works. 100 lbs.	27.45	–
bgs., c.l., works .... 100 lbs.	26.25	–
Sodium oxalate, 99%, bgs., t.l., works. lb.	.45	–
Sodium pentachlorophenate, beads c.l., 30,000-lb min. .... lb.	.67	–
bgs. .... lb.	.66	–
Sodium pentobarbital (see Pentobarbital-sodium).		
Sodium perborate, tetrahydrate, tech., bgs., c.l., t.l., works .... lb.	.32½	.36½
Sodium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant .... lb.	.63½	–
55-lb. bgs. same basis .... lb.	.62	–
Sodium phenobarbital (see Phenobarbital-Sodium).		
Sodium phenosulfonate, powd., dms., lb.	.76	–
Sodium phosphate, anhyd., dibasic tech., bgs., c.l., t.l., works, frt. equald. .... 100 lbs.	54.50	–
food grade, same basis. 100 lbs.	57.50	–
Sodium phosphate, monobasic, tech., same basis. .... 100 lbs.	56.75	–
food grade, same basis. 100 lbs.	59.75	–
tribasic, tech., same basis. 100 lbs.	52.25	52.75
food grade, same basis. 100 lbs.	63.25	–
chlorinated, same basis . 100 lbs.	31.50	–
cryst., tech., same basis. 100 lbs.	30.50	–
cryst., food grade, same basis .... 100 lbs.	35.50	–
USP, dried, powd., bgs., dms., works. .... lb.	.19	.20½
Sodium picramate, tech., paste. 200-lb. dms., dry basis, divd. . . lb.	5.50	–
Sodium propionate, dms., 2,000 lbs. or more, f.o.b. frt. alld. .... lb.	.54	–
Sodium pyrophosphate, acid, tech., bgs., c.l., works, frt. equald. . 100 lbs.	58.25	–
food grade, non-leavening, bgs., c.l., works. frt. equald. . . 100 lbs.	61.25	–
Sodium pyrophosphate, ferric, dms., c.l., t.l., works. .... lb.	.3880	–
Sodium pyrophosphate, tetrabasic, anhyd., tech., bgs., c.l., t.l., works, frt. equald. . . 100 lbs.	44.75	–
bulk, hopper cars, same basis. .... 100 lbs.	42.50	–
food grade, bgs., c.l., t.l., same basis. .... 100 lbs.	53.00	–
Sodium salicylate, USP, cryst., 200-lb. dms., 1,000-lb. lots or more, works, frt. equald. .... lb.	3.00	–
USP, powd., 200-lb. dms., 1,000-lb. lots or more, same basis. . . lb.	3.05	–
Sodium sesquicarbonate, bulk, c.l., t.l., works. .... ton.	170.00	–
bgs, c.l., t.l. works ... 100 lbs.	198.00	–
Sodium silicate, solid, or glass, 3.22-3.25 ratio, bulk, c.l., t.l., works. .... 100 lbs.	15.70	–
bgs., c.l., t.l., works... 100 lbs.	27.75	–
1.95-2.00 ratio, bulk, c.l., t.l., works .... 100 lbs.	20.30	–
bgs., c.l., t.l., works.... 100 lbs.	22.15	–
soln., 37.6° solid, 3.22-3.25 ratio, bulk, c.l., t.l., frt. equald. .... 100 lb.	6.30	–
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of Na_2O.		
Sodium silicofluoride, bgs., c.l., t.l., works, frt. equald. . . 100 lbs.	17.95	19.75
Sodium stannate, dms. wks. frt. alld. E.b.	N.A.	–
Sodium sulfanilate, dms, works ... lb.	.22	–
Sodium sulfate, NF XII, powd., dms., 2,000-lb. lots. .... lb.	.23½	–
tech., detergent, rayon-grade, c.l., works. Gulf. .... ton	90.00	96.00
Sodium sulfate, West, bulk, c.l., works, frt. equald. .... ton	90.00	101.00
bulk, c.l., East, same basis ... ton	113.00	114.00
Sodium sulfate, photo grade, 100-lb. bgs., c.l., works. .... ton	47.00	53.00
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald. .... ton	500.00	–
liq., 44-46%, tanks, works, frt. equald. .... ton	500.00	–
Sodium sulfide, flake, dms., c.l., works, E., frt. equald. .... ton	470.00	–
bgs., same basis .... ton	410.00	–
Sodium sulfide, fused, dms., c.l., works, E., frt. equald. ... ton	240.00	–
Sodium sulfite, anhyd., tech. 95-100% bgs, f.o.b. works ... 100 lbs.	23.76	–
Sodium sulfocyanide CP (see Sodium thiocyanate).		
Sodium tetraborate (see Borax).		
Sodium tetrasulfide. liq. 34%. dms., c.l., works, frt. equald. ... ton	540.00	–
Sodium thiocyanate, purif., cryst, 250-lb. dms., 5 dms. or more f.o.b. works. .... lb.	3.26	–
tech., anhyd. dms., 2,000 lbs. or more, works. .... lb.	.97	–
Sodium thiosulfate, tech., photo- grade, anhyd., 100-lb. bgs., c.l., t.l., works, frt. equald. ... 100 lbs.	45.60	–
cryst. pentahydrate, c.l., t.l., same basis. .... 100 lbs.	28.50	–
Sodium titanate, dms., c.l., works. . lb.	.14¼	–
Sodium trichloroacetate, 95%, 50-lb. bgs., c.l., frt. alld. E. .... lb.	.28	–
Sodium tripolyphosphate, tech., bgs., c.l., t.l., works. frt. equald. . 100 lbs.	39.75	–
bulk, hopper cars, same basis. 100 lbs.	37.50	–
food grade, bgs., c.l., t.l. same basis. .... 100 lbs.	48.50	–
Sodium tungstate, tech. high moly., dms., 10,800 lbs. or more, frt. alld. .... lb.	5.00	5.50
Folin grade dms., 10,800 lbs. or more, same basis. .... lb.	8.00	–
Sodium-ammonium phosphate, purif., cryst., dms., works. .... lb.	.52	–
Sodium-formaldehyde sulfoxylate, dms., t.l., f.o.b. works. .... lb.	.91	–
Sodium-zirconyl sulfate, dms., 1,000-lb. lots or more, works. ... lb.	.28	–
tech., dms., any quantity, works. lb.	.16	–
Solvent naphtha, petroleum, straight aromatic, b.r. 320°-350°F, 85°F m.a.p., tanks:		
New Jersey .... gal.	1.52	–
Houston .... gal.	1.41	–
Illinois .... gal.	1.54	–
Solvent naphtha, petroleum, straight aromatic, b.r. 360°F-410°F, 60°F m.a.p., tanks:		
New Jersey .... gal.	1.30	1.35
Houston .... gal.	1.30	–
Illinois .... gal.	1.30	1.35
Sorbic acid, t.l. dms., divd. .... lb.	2.50	3.10

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Sorbitan monostearate, dms., c.l., t.l., 30,000 lb. min., f.o.b. works. .... lb.	.76	–
Sorbitan tristearate, c.l., t.l., 30,000 lb. min., f.o.b. works. .... lb.	.80	–
Sorbitol, USP, reg. 70% aqueous, dms., c.l., f.o.b. shipping point .... lb.	.35	–
tanks, f.o.b. shipping point. . lb.	.30	–
gran., dms., c.l. t.l., works ..... lb.	.70	.74
powd., dms., c.l., t.l., works ..... lb.	.68	.72
Soybean meal (See Oils, Fats & Waxes market report.)		
Soybean oil (See Oils, Fats & Waxes market report.)		
Soybean oil acidulated, soapstock, 95% acid, tanks, New York lb.	.14	.15
Soybean oil, acid, dbl. dist., dms. . . lb.	.48	.59
tanks. .... lb.	.43	.44
s.d., dms. .... lb.	.47	.58
tanks .... lb.	.38	.43
Spearmint leaves, imp., bls. .... lb.	2.50	2.70
Spearmint oil, Far West, native .... lb.	9.50	–
Chinese, 60% .... lb.	5.60	–
Chinese, 80%	8.00	–
Far West, Scotch .... lb.	18.50	–
Spruce oil, dms. .... lb.	8.00	–
St. John's bread, edible, bls. .... lb.	.29	.30
Stannic chloride, anhyd., dms., works. .... lb.	N.A.	–
Stannic oxide, dms., works. .... lb.	N.A.	–
Stannous chloride, anhyd., dms. wks . lb.	N.A.	–
Stannous fluoborate, liq., conc., dms., t.l., works, frt. equald. ..... lb.	2.50	–
Stannous oxide, dms., works .... lb.	N.A.	–
Stannous sulfate, dms., works ..... lb.	N.A.	–
Stearic acid, double pressed, bulk . lb.	.26	.39
single-pressed, bulk .... lb.	.28	.375
triple-pressed, bulk .... lb.	.32	.40
Stramonium leaves, bgs. .... lb.	.15	.20
Streptomycin sulfate, USP, bulk. . kilo.	47.00	–
Strontium carbonate, glass grd., bgs., t.l., works. .... lb.	.37¼	–
Strontium nitrate, 50-15 bgs., c.l., works. .... 100 lbs.	51.50	–
Styrene monomer, 99.6% min., t.c., t.t., f.o.b. works .... lb.	.22	.27
Styrene-acrylonitrile resin, nat., bulk, f.o.b. plant .... lb.	.77	–
cryst., bulk, same basis ...... lb.	.77	.81
clear, same basis .... lb.	.77	.81
Styrol acetate, dms. .... lb.	2.35	–
Succinic acid, purif., cryst., dms., t.l., frt. alld. .... lb.	2.00	2.10
Succinic anhydride, dms., c.l., t.l., f.o.b. work .... lb.	1.71	–
Sucrose, refd., white, bgs., c.l., f.o.b. refy. E. .... 100 lbs.	33.10	–
Sucrose acetate, isobutyrate, 90% dms., t.l., divd .... lb.	1.16	–
tanks, divd. .... lb.	1.10	–
100%, dms., t.l., divd. .... lb.	1.18	–
Sucrose octa-acetate, denaturing grade, 100-lb. dms., f.o.b. works .... kilo	12.50	13.50
Sulfabenzamide, dms., 500 kilos . kilo.	39.50	–
Sulfabenzamide-sodium, dms., 500 kilos. .... kilo.	25.00	–
Sulfacetamide, USP. dms., 500 kilos. .... kilo.	20.00	23.50
Sulfadiazine, USP, powd. dms., 500 kilos. .... kilo.	53.00	–
Sulfadiazine-sodium, USP, dms., 500 kilos. .... kilo.	40.70	–
Sulfamerazine, USP, microcrystals, dms., 500 kilos .... kilo.	33.50	–
USP, powd., dms., 500 kilos. . . kilo.	32.00	–
Sulfamethazine-sodium, USP, powd. dms., 50 kilos .... kilo.	13.00	–
Sulfamethazine, powder, dms., 500 kilos. .... kilo.	9.00	10.00
Sulfamic acid, cryst., bgs., c.l., t.l., works .... 100 lbs.	38.00	41.00
Sulfamic acid, gran., dms., c.l., t.l., works. .... lb.	.36	–
Sulfanilamide, NF, reg. 1,000-lb. dms., frt. equald. .... lb.	2.00	–
Sulfanilic acid, tech., bgs., t.l., f.o.b. works. .... lb.	.67½	–
Sulfaquinoxaline, veterinary, grade, dms. .... lb.	8.00	–
Sulfur, crude, bright, molten, dom., f.o.b. vessels, Gulfports .... long-ton	118.00	120.00
f.o.b. La. refy .... long-ton	120.00	122.00
recovered, divd., Houston . long-ton	120.00	122.00
ex terminal, Rotterdam ... long ton	135.00	–
f.o.b. tanks, Alberta, Canada, for US delivery .... long-ton	60.00	65.00
dark, ex-Tampa, Fla. ...... long-ton	152.50	–
Sulfur, crude, 99.5% min. purity, coml. flour, 50-lb. bgs., c.l., mines basis .... 100 lbs.	13.60	–
lump, same basis .... 100 lbs.	13.60	–
Sulfur, refd., 99.5% min. purity, rolls 50-lb. bags, c.l., mines basis .... 100 lbs.	17.50	–
flour, light, 50-lb. bgs., same basis .... 100 lbs.	20.00	–
Sulfur, refd., sublimed, NF, 99.85% min. purity, 50-lb. bgs., c.l. mines basis .... 100 lbs.	26.00	–
Sulfur, rubbermakers, 99.5% min. purity, coml. reg., 50-lb. bgs., c.l., mines basis .... 100 lbs.	14.60	–
fine, 98% min. passing through 325 mesh, same basis . . 100 lbs.	15.60	–
Sulfur dichloride, dms., c.l., works, frt. equald. .... lb.	.24	–
tanks, same basis .... lb.	.17¾	–
Sulfur dioxide, liq., bulk, t.c., t.t., f.o.b. works. .... ton.	230.00	–
Sulfur monochloride, dms., c.l., works, frt. equald .... lb.	.22½	–
tanks, same basis .... lb.	.16¼	–

CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Product	Unit	Low	High
Sulfuric acid, virgin 100% tanks, works,			
East Coast	ton	71.75	95.90
Gulf Coast	ton	75.00	86.40
Midwest	ton	80.25	–
Southeast	ton	58.15	–
West Coast	ton	85.00	–

NOTE: For prices on 60 and 66 Be., multiply by .7767 and .9319, respectively. For price of 20% fuming oleum, as is, add $3-$4 to above prices and multiply by 1.045.

Product	Unit	Low	High
Sulfuric acid, smelter, 100% tanks, works,			
Gulf Coast	ton	48.00	52.00
New Mexico	ton	20.00	25.00
Southeast	ton	63.15	–
93%, tanks, dlvd., Northwest	ton	60.00	65.00
Sunflowerseed oil, crude, f.o.b. Minneapolis	lb.	.15½	.16
Superphosphate, triple, 46% or more, a.p.a., run-of-pile, bulk, c.l., Fla.	unit-ton	2.75	3.05
bulk, gran., c.l., Fla.	ton	160.00	165.00

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Product	Unit	Low	High
Talc, dom., grd. New York bgs., c.l., works	ton	84.00	–
99.5%, 325 mesh, bgs., c.l., works	ton	84.00	90.00
Talc, dom., 99.5%, 400 mesh, micronized, bgs., c.l., works	ton	187.00	238.00
625 mesh, micronized, bgs., c.l., works	ton	200.00	–
dom., ord., Calif. grd., bgs., c.l., works	ton	90.00	–
ord., Vermont, off-color grd., bgs., c.l., works	ton	136.00	–
imp., Canadian, grd., bgs., c.l., works	ton	70.00	84.00
Tall oil, crude, Southeast, tanks, works, frt. equald.	ton	90.00	100.00
Tall oil, refd., acid, same basis	lb.	.31	–
dist., tanks, same basis	lb.	.19	.23
Tall oil acids, 2% or more rosin, tanks, works, frt. equald.	lb.	.20½	.23½
less than 2% rosin acid	lb.	.22	.27
Tallow (see Oils, Fats & Waxes market report.)			
Tallow, fatty acids, tech., non-ret. dms., c.l., dlvd.	lb.	.37	.40
tanks, dlvd.	lb.	.29	.45
hydrogenated, tech., flake, bgs., c.l., dlvd.	lb.	.37	.33
tanks, dlvd.	lb.	.35	.42
Tangerine oil, Fla., dms. f.o.b.	lb.	8.50	9.50
Italian, dms.	kilo	52.90	–
Tankage, animal feeding, 9-11%, NH_3, New York, bulk	unit-ton	5.50	–
Tankage, fert. grade (see Nitrogenous process tankage).			
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots	lb.	6.09	–
tech., powd., dms.	lb.	4.62	–
Tar acid oil, 15-18% t.l., dms., f.o.b works	gal.	1.40	–
25-28%, t.l., dms., f.o.b. works	gal.	1.59	–
50-53%, t.l., dms., f.o.b. works	gal.	1.87	–
Tartaric acid, NF, bgs.	lb.	1.20	1.50
Tellurium, metallurgical, f.o.b. works	lb.	12.00	–
Terpin hydrate, NF, imp., cryst., powd., 36 kilo drums, f.o.b. ship. pt., frt. equald.	lb.	1.35	–
Terpineol	lb.	1.10	1.50
Terpinyl acetate, extra, dms	lb.	2.40	–
prime, dms.	lb.	1.35	2.05
Terpinyl propionate, dms.	lb.	4.50	–
Tetrachloroethylene, tech. (see Perchloroethylene).			
Tetrachloroethylene, USP, dms., c.l., t.l., works	lb.	.30¼	–
Tetraethyl orthosilicate, bulk, f.o.b. works	lb.	1.53	1.66
Tetraethylene glycol, tanks, frt. alld.	lb.	.67	–
Tetraethylene glycol diacrylate, t.l. dms., f.o.b. works	lb.	1.50	–
Tetraethylenepentamine, tanks, same basis	lb.	1.70	1.75
Tetraethylthiuram disulfide, tech., flake, dms., t.l., frt. alld.	lb.	.68	2.07
Tetrahydrofuran dms., c.l., t.l., f.o.b. works	lb.	1.02	–
tanks, same basis	lb.	.96	–
Tetrahydrofurfuryl alcohol tanks, f.o.b. Memphis, Tenn.	lb.	.90	–
Tetrahydrolinalool, syn., dms.	lb.	7.20	–
Tetrahydrophthalic anhydride dms., c.l., t.l. f.o.b. works	lb.	.65	–
Tetrapotassium phosphate (see Potassium phosphate, tetrabasic).			
Tetrasodium pyrophosphate (see Sodium pyrophosphate, tetrabasic.)			
Thallium metal, dlvd.	lb.	35.00	–
Thallium sulfate, 99%, bots., dlvd.	kilo	140.00	–
Theobromine, bulk f.o.b. works	kilo	140.00	150.00
Theophylline, USP, anhyd. 50-kilo dms., 10,000-kilo lots	kilo	12.00	12.95
Thiamine hydrochloride, USP 100-kilo dms., dlvd.	kilo.	33.00	–
Thiamine mononitrate, USP, 100-kilo., dms., dlvd.	kilo.	33.00	–
Thiodiphenol, 98%, dms., f.o.b. works	lb.	3.35	–
Thioflavin green toners, molybdated, PMA, dms.	lb.	5.40	6.05
tungstated, PTA, dms.	lb.	5.60	5.85
Thioglycolic acid, refd., dms., ton lots 100% acid basis	lb.	2.07	–
Thioindigoid maroon, dms., frt. alld.	lb.	7.50	–
reds, dms., frt. alld.	lb.	5.88	6.12
Thionyl chloride, high-purity, 99.6%, 24,000-lb. min. t.l., dms. frt. equald.	lb.	.55	–
Thorium nitrate, purif., dms., 100-lb. lots or more, works	lb.	2.75	–
dl-Threonine, dms 10 kilos wks.	kilo.	128.00	–
Thyme leaves, French, bgs.	lb.	1.45	–
Spanish, bgs.	lb.	.75	–
Thyme oil, NF, red, dms.	kilo	20.00	–
NF, white, dms.	kilo	22.00	–
Thymol, NF	lb.	3.75	6.15
Thymol iodide, dms., 100-lbs. f.o.b. works	lb.	52.30	56.20
Tin metal (NY composite)	lb.	N.A.	–
Titanium dioxide, anatase, bgs., 20-ton lots, frt. alld.	lb.	.77	.79
slurry shipments, 50-ton lots, dry basis, frt. alld.	lb.	.78	–
Titanium dioxide, rutile, reg., bgs., 20-ton lots, frt. alld.	lb.	.81	.84
slurry shipments, 50 ton lots, dry basis, frt. alld.	lb.	.84	–
Non-chalking rutile material costs 1c. per pound more.			
Titanium hydride powd. electronics grade, dms.	lb.	26.50	–
Titanium tetrachloride, tech., bulk, c.l., f.o.b. works	lb.	.30	.35
200-gal cylinders c.l., same basis	lb.	.50	–
Titanium sponge, 99.3%, fiber drums, less than 5,000 lbs. f.o.b. wks.	lb.	4.85	–
Tobias acid, 2,000 lbs. or more	lb.	2.45	–
d-a-Tocopherols, 67%, dms.	kilo	50.08	–
d-a-Tocopheryl acetate, 81% conc., dms.	kilo	57.49	–
d-a-Tocopheryl acid succinate, cryst., dms.	kilo	78.44	–
dl-a-Tocopherol, dms.	kilo.	27.40	–
dl-a-Tocopheryl acetate, USP 50-kilo dm. 1000 kilo min.	kilo.	16.00	16.50
50% dry powd., 50-kilo dm.	kilo	17.00	–
Tolu balsam, cns.	lb.	7.60	8.66
Toluene, petroleum, ind. or nitration, tanks			
Atlanta, Ga., dlvd.	gal.	.70	–
Bayonne, N.J., dlvd.	gal.	.70	–
Baytown, Tex., f.o.b.	gal.	.70	–
Chicago, Ill. dlvd.	gal.	.70	–
Clairton, Pa., f.o.b.	gal.	.70	–
Deer Park, Tex., f.o.b.	gal.	.70	–
Ft. Wayne, Ind., dlvd.	gal.	.70	–
Gulf Coast, spot, barges	gal.	.70	–
Houston, Tex., dlvd.	gal.	.70	–
New Jersey Metro, dlvd	gal.	.70	–
Philadelphia, Pa., dlvd.	gal.	.70	–
Providence, R.I., dlvd.	gal.	.70	–
Toluene di-isocyanate (mixed isomers), 80%, 2,4- and 20% 2,6-isomers, jumbo tankcars, dlvd.	lb.	1.01	–
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	3.55	–
m-Toluidine, tech., bulk	lb.	3.10	–
o-Toluidine, tech., liq., dms. c.l.	lb.	.72	.75
bulk, same basis	lb.	.60	.64
p-Toluidine, tech. cast solid, dms., cl., works	lb.	1.80	1.85
Liq., tanks, same basis	lb.	1.70	–
flake, same basis	lb.	1.95	–
Toluidines, mixed, o-m-p, tech., liquid, c.l. f.o.b. works	lb.	1.03	–
bulk same basis	lb.	.95	–
Tolyltriazole, dms., 1,000-lb. lots, f.o.b. Cincinnati, Ohio	lb.	2.90	–
Tonka beans, Angostura, prime, 1,000-lb. lots	lb.	6.50	–
Toxaphene, dms., c.l., t.l., works	lb.	.38	–
Tragacanth gum, No. 1, ribbons, cns.	lb.	36.00	40.00
flaked powder	lb.	12.50	15.00
Triacetin tanks, dlvd. E	lb.	.75	–
Tributyl citrate, t.l., drums, f.o.b., works	lb.	1.70	–
Tributyl phosphate, tanks, works	lb.	1.65	1.77
Tributylamine, dms., c.l., dlvd.	lb.	1.39	–
tanks, same basis	lb.	1.33	–
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b., works	lb.	.94	–
USP, 100-lb. dms., frt. equald.	lb.	.99½	–
1,2,4-Trichlorobenzene, pure, tanks, dlvd.	lb.	.61½	–
1,1,1-Trichloroethane, tanks, consumers, dlvd.	lb.	.40½	–
1,1,2-Trichloroethane, tanks, f.o.b. works	lb.	.42	–
Trichloroethylene, tanks, dlvd.	lb.	.38½	–
Trichloroisocyanuric acid, dms.	lb.	1.25	–
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65%, soln., non-ret. dms., 1,500-lb. lots, dlvd.	lb.	1.35	–
Tricresyl phosphate, tanks, f.o.b. works	lb.	1.60	1.76
Tridecyl alcohol, mixed isomers, tanks, dlvd.	lb.	.57	–
Triethanolamine, 85%, tanks, dlvd. E.	lb.	.35	.37
99%, tanks, same basis	lb.	.35	.37
Triethanolamine lauryl sulfate, tanks, f.o.b. works	lb.	.27¼	.27½
Triethylamine, dms., c.l., dlvd.	lb.	1.33	–
tanks, same basis	lb.	1.20	–
Triethyl citrate, t.l., drums, f.o.b., works	lb.	1.82	–
Triethyl phosphate, tanks, dlvd.	lb.	1.15	–
Triethylene glycol, tanks, f.o.b. Gulf	lb.	.47	–
Triethylene glycol dipelargonate, tanks f.o.b. works	lb.	.29½	–
40-60% tanks, 100% basis, frt. equald.	lb.	.35	–
Triethylenetetramine tanks, frt. equald.	lb.	1.43	1.48
Tri-iso-tolyl trimellitate, f.o.b. works	lb.	.51	.55
Tri-isobutylene, tanks, dlvd.	lb.	.45	–
Tri-isopropanolamine, dms., c.l., frt. alld. E.	lb.	.57½	–
Trimethylamine, anhyd., tanks, frt. equald., 100%	lb.	.54½	–
25% soln., tanks, frt. equald., 100% basis	lb.	.63½	–
40% soln., tanks, frt. equald., 100% basis	lb.	.56½	.57
Trimethylolpropane bgs c.l. t.l. dlvd.	lb.	.73	–
Trimethylolpropane triacrylate, t.l. dms., f.o.b. works	lb.	1.50	–
Tripentaerythritol, tanks, frt. alld., E.	lb.	1.00	–
Triphenyl phosphate, dms., t.l., frt. equald.	lb.	1.64	.78
Tripropylene glycol tanks, frt. alld. E	lb.	.64	–
Tris-(hydromethyl)nitromethane, solid, t.l. works	lb.	.805	–
Trisodium phosphate (see Sodium phosphate, tribasic)			
l-Tryptophan, dms, 25-kilo lots	kilo	62.00	65.00
Tung oil, tanks, imp. New York	lb.	.31	.33
Tungstic acid 92½%, dms., 1,750-6,000 lbs., works	lb.	12.85	–
Turmeric, Alleppey 5%	lb.	.66	–
Turmeric, Alleppey over 6%	lb.	.69	–
Turpentine, crude sulfate tanks, f.o.b. Southeast works	gal.	.70	.80

U

Product	Unit	Low	High
Ultramarine blue pigments, 550-2,000 lb.-lots, works	lb.	1.30	–
violet, same basis	lb.	2.20	–
Umber pigment, burnt, American, frt. equald.	lb.	.13½	.15½
raw, American, dom., bgs., l.c.l., same basis	lb.	.13½	.14¾
Undecylenic acid, dms., works	lb.	2.70	–
Urea, 46% N, ind., bulk, Gulf Coast, 50-ton c.l.	ton	200.00	–
46% N, agricultural, barges, f.o.b. Gulf Coast, granular	ton	75.00	80.00
46% N, agricultural, f.o.b. Midwest terminals, granular	ton	100.00	–
Uva-Ursi leaves, bls.	lb.	.22	–

V

Product	Unit	Low	High
Valerian root, Belgian, bgs.	lb.	.65	.85
Indian, bgs.	lb.	.45	–
Vanadium oxytrichloride, 3,000 lb. cyls., works	lb.	5.40	–
Vanadium pentoxide, tech., gran., per lb. of V_2O_5, 550-lb. dms., works	lb.	4.10	4.94
fused or flake, per lb. V_2O_5, 550-lb. dms., works	lb.	3.35	3.65
Vandyke brown, bags., t.l., frt. equald.	lb.	.27¼	–
Vanilla beans, Madagascar	lb.	37.00	–
Java, tins	lb.	27.00	30.00
Vanillin, USP, dms., f.o.b works	lb.	6.25	–
imp., dms.	lb.	4.75	5.00
Versinol Ag	lb.	.64	–
Vetiveryl acetate, dms.	kilo	60.50	–
extra	lb.	63.00	–
Vetiver oil, Bourbon, dms.	lb.	49.00	–
Chinese	lb.	18.00	–
Haitian	lb.	26.50	–
Java	kilo	34.00	–
Victoria blue toners, molybdated, PMA dms.	lb.	8.20	8.30
tungstated, PTA, dms.	lb.	10.40	–
Vinyl acetate monomer, tanks, dlvd.	lb.	.39	–
Vinyl chloride monomer, polymer grade, tanks, f.o.b. works	lb.	.28	–
Vinyl ether, USP, anesthesia, 75-cc. bots., hospitals	bots.	1.56	–
2-Vinylpyridine t.l., dms. works	kilo.	7.81	–
tanks, works	kilo.	7.61	–
Vinyltoluene, bulk, f.o.b.	lb.	.67	.73½
Vitamin A, synthetic, dry, pharm., 500,000 A units per gm., 50-kilo. lots	kilo	33.00	–
Vitamin A, liq. in oil, pharm., 1,000,000 A units per gram, 10 kilo lots	kilo	41.00	–
Vitamin A, feed grade, 650,000 units per gm.	kilo.	18.70	23.65
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_2 (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., non-sterile, USP (cyanocobalamin), vials, 50-gram, lots	gram	8.00	9.75
Vitamin B_{12} 1% trituration of cryst. B_{12} (cyanocobalamin USP) with dicalcium phosphate, 25-kilo dms.	kilo.	10.75	12.75
Vitamin B_{12}, 0.1% trituration of cryst. B_{12} (cyanocobalamin USP) with mannitol, 25-kilo. dms.	kilo.	15.80	–
Vitamin B_{12}, cobalamin concentrate NF with mannitol. 1,000 mcg. per gram, dms.	per gram activity	19.45	–
Vitamin B_{12}, 1% Vitamin B_{12}, USP, absorbed on resin, 5-kilo dms., 500-gram lots, frt. alld.	per gram activity	15.65	–
Vitamin B_{12}, 1% cobalamin concentrate, NF, absorbed on resin, 5-kilo dms., frt. alld.	per gram activity	15.40	–
Vitamin B_{12}, 1% cyanocobalamin in gelatin, 2.5-kilo dms., frt. alld.	per gram activity	15.40	–
Vitamin C (see Ascorbic acid).			
Vitamin D (see Cholecalciferol)			
Vitamin D_2 (see Codliver and Fishliver oils).			
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Violet methyl toner (see Methyl violet toner)			

W

Product	Unit	Low	High
Warfarin 0.5%, dms., ton lots, frt. alld. New York or Chicago	lb.	.75	–
Wheat germ oil, cold-pressed	gal.	16.50	17.50
cold-processed	gal.	14.00	–
White precipitate, USP, powd., 100-lb. dms., f.o.b. works	lb.	7.892	11.24
Whiting (see Calcium carbonate).			
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls.	lb.	1.35	–
leaves, bls.	lb.	1.75	–
400 mesh, bgs., c.l. works	ton	134.00	–
325 mesh, bgs., c.l. works	ton	117.00	–
high aspect ratio, bgs., works	ton	164.00	–
Wollastonite, t.l., f.o.b., producing plant, general grade	ton	200.00	–
325 mesh	ton	140.00	141.00
400 mesh	ton	160.00	–
1250 mesh	ton	500.00	–
Wool grease, USP (see Lanolin).			
Wormseed oil (see Chenopodium oil, NF)			
Wormwood oil, cns.	lb.	31.00	–

X

Product	Unit	Low	High
Xanthan gum, food 300-lb. dms., f.o.b. works	lb.	5.65	6.20
Ind., grade, same basis	lb.	4.54	–
Xylene, petroleum, ind. or nitration, tanks			
Alliance, La., f.o.b.	gal.	.76½	–
Atlanta, Ga., dlvd.	gal.	.76½	–
Bayonne, N.J., dlvd.	gal.	.76½	–
Bayonne, N.J. f.o.b.	gal.	.76½	–
Baytown, Tex., f.o.b.	gal.	.76½	–
Chicago, Ill., dlvd.	gal.	.76½	–
Clairton, Pa.	gal.	.76½	–
Ft. Wayne, Ind., dlvd.	gal.	.76½	–
Gulf Coast, spot, barges	gal.	.76½	–
Houston, Tex., dlvd.	gal.	.75	.76
New Jersey Metro, dlvd	gal.	.76½	–
Xylene, petroleum, ind. or nitration, tanks			
Philadelphia, Pa., dlvd.	gal.	1.36	–
Providence, R.I., dlvd.	gal.	1.42	–
South Bend, Ind., dlvd.	gal.	1.37	–
m-Xylene, high purity, tanks, f.o.b. Texas City, Tex.	lb.	.36	–
o-Xylene, tanks, works	lb.	.125	–
p-Xylene, tanks, dlvd.	lb.	.19	.19½
m-Xylenediamine, dms., t.l., f.o.b. works	lb.	1.70	–
2,4-Xylidine, tech., liq., c.l., t.l. f.o.b. works	lb.	1.50	–
Xylidines, mixed, o-m-p., dms., c.l., t.l., f.o.b. works	lb.	1.00	–

Y

Product	Unit	Low	High
Yara yara, 25-lb. cns.	lb.	2.81	–
Yeast, pure brewer's debittered, NF, Saccharomyces, t.l., f.o.b. works	lb.	1.10	–
Yerba, santa leaves, bls.	lb.	2.40	–
extra, bots.	lb.	26.50	31.75
Ylang-ylang oil, extra grade	lb.	36.50	–
grade 1	lb.	25.00	–
grade 2	lb.	25.00	–
grade 3	lb.	22.00	–

Z

Product	Unit	Low	High
Zein, bgs., 2,000-lb. lots	lb.	7.50	9.30
Zinc acetate, NF, dms.	lb.	1.00	1.78
tech., dihydrate, bgs., t.l., works	lb.	1.60	–
Zinc borate, tech., 43% ZnO, 37% B_2O_3, 50-lb. bgs., 20,000-lb. t.l., f.o.b. works	lb.	.56	–
cryst., 37% ZnO, 49% B_2O_3, 250-lb. dms. 20,000 lbs. t.l. f.o.b. wks.	lb.	.89	–
Zinc chloride, USP, gran., dms.	kilo	9.79	–
Zinc chloride, tech., soln. 50%, tanks, f.o.b. Cleveland, Ohio	100 lbs.	20.20	–
Concord, N.C.	100 lbs.	20.20	–
Freeport, Tex.	100 lbs.	20.20	–
Old Bridge, N.J.	100 lbs.	20.20	–
65 degree, same basis Cleveland, Ohio	100 lbs.	27.90	–
Concord, N.C.	100 lbs.	27.90	–
Old Bridge, N.J.	100 lbs.	27.90	–
70 degree, same basis Cleveland, Ohio	100 lbs.	29.70	–
Concord, NC	100 lbs.	29.70	–
Old Bridge, NJ	100 lbs.	29.70	–
72 degree, same basis Cleveland, Ohio	100 lbs.	33.20	–
Concord, NC	100 lbs.	33.20	–
Old Bridge, NJ	100 lbs.	33.20	–
Zinc chromate, bgs., dlvd.	lb.	1.12	–
Zinc cyanide, dms., c.l.	lb.	1.65	2.14
Zinc dust pigment type 1 & 2, dms., c.l., f.o.b. plant	lb.	.59	.67
Zinc ethylenediamine tetracetic acid, 8.4% Zn., ammonia salt soln., t.c., t.t., f.o.b. works	lb.	.56	–
9% Zn., ammonia salt soln., t.c., t.t., f.o.b. works	lb.	.48	–
Zinc fluoborate, liq. conc., dms., t.l., works, frt. equald.	lb.	.66	–
Zinc metal, high grade, dlvd.	lb.	.47	.50
Zinc naphthenate, liq. 8% Zn, dms., dlvd	lb.	.95	–
Zinc nitrate, tech., flake 300-lb. dms.	lb.	.34	.36
Zinc oxide photo conductive, bgs., c.l., frt. alld.	lb.	.50	.60
Zinc oxide, USP 50-lb. bxs., c.l., frt. alld.	lb.	.59	.65
Zinc oxide pigment, American process, lead-free bgs., c.l., frt. alld.	lb.	.57	.59
Zinc oxide pigment, French process regular, bgs., c.l., frt. alld.	lb.	.55	.55½
Zinc phenolsulfonate, purif., gran., 250-lb. dms., t.l., frt. alld.	lb.	1.82	–
Zinc pyridinethione, 48% dispersion, dms., f.o.b. works	lb.	8.50	8.80
Industrial grade		14.50	–
Zinc resinate precip. 7.2-7.8% Zn, dms., frt. alld.	lb.	.45	–
Zinc silicofluoride, dms., c.l., t.l., works	lb.	.17	.18½
Zinc stearate, USP, bulk, t.l.	lb.	.92	1.03
Zinc sulfate, gran., monohydrate, industrial grade 36% Zn., bgs., c.l., works	100 lbs.	30.00	32.00
agricultural grade powd., bulk, same basis	100 lbs.	28.50	–
Zinc yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works	lb.	.42	–
Zinc undecylenate, dms., works	lb.	4.67	4.70
Zinc-formaldehyde sulfoxylate, basic 200-lb. dms., frt. alld.	lb.	1.05	–
Zircon gran. bgs., bulk c.l., works	ton	165.00	177.00
Zircon milled bgs., 200 and 325 mesh, c.l., works	ton	225.00	–
Zirconium acetate soln., 25% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	.97	–
22% ZrO_2, same basis	lb.	.78	–
Zirconium hydride, powd., electronic grade, dms., works	lb.	.81	.79
Zirconium oxide, powd., coml., dms., 2,000 lbs. min.	lb.	4.25	–
electronic, same basis	lb.	7.25	–
insulating, stabilized, 325°F same basis	lb.	3.31	3.66
insulating, unstabilized, 325°F same basis	lb.	3.85	3.75
dense, stabilized, 30F, same basis	lb.	2.82	–
Zirconium oxychloride, liq., cns. 5-ton lots, works	lb.	.91	1.04

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1-11'6" x 70' lg. Bartlett Snow Calciner, 316SS, 1100°C., complete.
1-11'6" dia. C.E. Raymond Separator, single whizzer, CS constr.
1-24,000 Gal. Mix Tank, SS constr., 16' dia. x 16', 20 HP.
1-20,000 Gal. Storage Tank, SS constr., 16" dia. x 14'.
2-10,000 Gal. Storage Tank w/-jckt., SS constr., atmos. int., 150 psi jckt.
1-10,000 Gal. Mix Tank, SS constr., 13' dia. x 10', 30HP.
1-10,000 Gal. Mix Tank w/int. coils, 13' dia. x 10', 30 HP.
1-Marley NC Tower, 88"W. x 14'6" L. x 9'H.
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(2) 32" dia.x 108" Blaw Knox CI dble. drum dryer
(1) 32" dia. x 17'6" Sandvik SS belt flaker
(1) 38" dia.x 10' Buflovak CI dble. drum dryer
(3) 42" dia.x120" Blaw Knox CI dble. drum dryer
(1) 48" dia.x 28" drum flaker, chrome plated drum
(1) 48" dia.x 40" CI flaker, mfg. by Buffalo Foundary
(1) 48" dia.x 40 drum flaker, nickel plated drum, mfg. Blaw-Knox

Fluid Bed
(1) 60 Kg. Aeromatic, Batch, 6'x9', 58,000
(1) 100 Kg. Aeromatic Model ST 100, sanitery SS
(1) Fitzpatrick Model FA 250, SS, 20 HP XP

Holoflite
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(1) New/Never-Used Joy Processor, CS, single screw, 16"x16' long, rated 110 psi @ 340° F., sprocket & chain drive by 1.5 HP varispeed drive.

Rotary Vacuum
(1) 200 Cu. Ft. Stokes, SS constr., complt.
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(1) 150 Cu. Ft. Blaw Knox, Nickel
(2) 132 Cu. Ft. Stokes, Nickel
(1) 72 Cu. Ft. Blaw Knox, SS
(1) 60 Cu. Ft. Titanium Double Cone
(1) 50 Cu. Ft. Gemco, 316SS sanitary, double cone
(1) 37.8 Sq. Ft. Horiz. Thin Film, vac. int. & 150 psig, 304/316SS
(1) 37 Cu. Ft. Gemco, SS
(1) 30 Cu. Ft. P-K Twin Shell, 304SS
(1) 20 Cu. Ft. Abbe Twin Cone, 304SS

Spray
(1) 30"x3' Bowen Laboratory w/3' cone bottom, SS constr., w/centrifugal atomizer, 3 HP blower & motor.(1)
(1) Niro lab size 32" diax2'w/2'cone w/centrif. atomizer SS contacts
(1) 18' dia. Bowen complt. system SS contacts, new 1976

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(1) Delaval BRPX 309, SS, 20HP
(1) Unused Model B-10 Podbielniak, Alloy 20
(1) Sharples AS-26, SS
(2) Sharples AS-16P, 316SS
(1) Alfa-Laval SS Decanter, Horiz., Mdl. NX314
(2) Dorr Oliver Mdl. CH30 CSU "Merco," 316SS contacts, 150 HP
(1) Baker Perkins S-32 "Pusher Type," SS, 50 HP
(1) Bird 18" x 28", 316 ELC, contour bowl.
(2) Bird 24"x38", 316SS, 40 HP
(3) Sharples P-3000, 316SS, 30 HP
(1) Sharples P-1000, SS 20HP
(1) Unused Bird 36 x96, 317L SS
40"x 20" Tolhurst centrifuge, Kynar lined, perf. basket
(1) Tolhurst 48" x 24" perf. basket, 316SS sanitary, auto. plow & discharge, rated 65 #/cu. ft. @ 900 RPM, 20 HP XP.
(1) Tolhurst 48" x 24" Batchmaster, 316SS, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Tolhurst 48"x24" Batchmaster, rubber lined, perf. basket, w/hydr. plow & 20HP hydr. drive
(2) Tolhurst 48" x 24" Batchmaster, Heresite lined, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Western states 48"x 24", 316 SS
(1) Fletcher 48"x 28" Suspended type, SS perf. basket, 20/10 HP
(1) Sharples Tornado 48" x 30", 316SS, perf. basket, 40 HP XP
(1) Alfa Laval Model MAPX 210 T24, SS wetted parts
(2) Sharples C-27, 316 SS, wetted parts, 40 HP
(1) Sharples C-20, Super-D-Hydrator, SS, 30 HP
(1) Dorr Oliver Mercone Screener Model C-400 X2, all SS, twin screw disch., 10 HP

PARTIAL LISTING ONLY

EVAPORATORS

(1) 1 Sq. Ft. Artisan "Kontro" Ajust-O-Film sys., 316SS
(1) 1.4 Sq. Ft. Luwa Wiped Film, 316SS, 1.5 HP
(1) 1.4 sq. Ft. Luwa thin film SS
(1) 2.5 Sq. Ft. Rodney Hunt Turbo Film 347 SS
(1) 5.4 sq. Ft. Luwa filmtruder, 316 LSS
(1) 6.54 Sq. Ft. Votator Evaporator System, 316 SS contacts, 15 psi & FV & int., 150 psi jkt.
(1) 8.7 Sq. Ft. Rodney Hunt Turbo-Film, 304 SS contact parts, 15 psi & FV/150 psi jckt.
(1) 10.8 Sq. Ft. Luwa SS Wiped Film Evap. System, 15/550 psi
(1) 19.8 Sq. Ft. Votator Turba-Film, 304 Sanit. SS FV/150 psi 10HP
(1) 20 Sq. Ft. Kontro Horiz. Adjust-O-Film, 316ELC, 50 psig, 15 HP
(1) Approx 31 Sq. ft. Vert., Turbo-Film Processor, 304 SS Contacts
(1) Like New 37.8 Sq. Ft. Luwa Horiz. Thin-Film Dryer, 304/316L SS
(1) 40 Sq. Ft. Kontro Adjust-O-Film, SS constr., 20 HP
(1) 47 Sq. Ft. Artisan rising Film, Hast. "C"
(1) Approx 51 sq. ft. Pfaudler Wiped film, 316 SS, 100/85 & FV
(1) 80 Sq. Ft. Kontro Wiped Film Syst., SS constr., FV/150 psi, 40 HP
(1) UNUSED 88 sq. ft. Luwa thin film dryer horiz. 316 L wetted parts, FV int., 150 psi sat steam jkt.
(1) 141 Sq. Ft. Rodney Hunt Turbo-Film, 316 SS 15 psi int., 35 psi jkt 40 HP XP

BLENDERS

600 Cu. Ft. Jktd. Dbl.Rbn., CS
Approx. 460 Cu. Ft. CS, 75HP
UNUSED 460 Cu. Ft. Marion Paddle, CS, 75 HP
400 Cu. Ft. J. H. Day Dbl. Ribbon Carbon Steel Contr. 40 HP (1)
300 Cu. Ft. CS Dbl. Cone 30 HP
200 Cu. Ft. KS 316SS Dbl. Cone
175 Cu. Ft. P-K Twin Shell, 316SS
150 Cu. Ft. J. H. Day Dbl. Ribbon Carbon Steel Contr. 25 HP (2)
69.3 Cu. Ft. CS Dbl. Cone, 7.5 HP
63 Cu. Ft. Marion Paddle, CS
60 Cu. Ft. 304 SS P-K, Twin Shell, w/int. bar
60 Cu. Ft. Gemco Dbl. Cone, 304SS
40 Cu. Ft. Gemco Twin Shell, SS Sant. Finish
37 Cu. Ft. Gemco SS
30 Cu. Ft. P-k, 304 SS, W/lig. bar.
20 Cu. Ft. P-K, Twin shell, SS
16 Cu. Ft. Robinson Dbl. Rbn. CS
15 Cu. Ft. WC Marion SS
10 Cu. Ft. Gemco dbl. cone, CS, 1½HP
10 Cu. Ft. P-K Sanit Twin Shell 1½HP
10 Cu. Ft. Howes, CS, Dbl. Rbn.
5 Cu. Ft., SS, Dbl. Cone W/liquid-solids bar
10" P-K zig zag

FILTERS

Pressure Leaf
1-562 Sq. Ft., 316ELC, Hercules, 28 leaves
1-512 Sq. Ft., 316SS, Niagara, 21 leaves
1-400 Sq. Ft. R/L Sparkler
1-327 Sq. Ft., 304SS, Ind. Filter, 11 leaves
1-320 Sq. Ft. Durco 316 SS, 11 Leaves
1-259 Sq. Ft. Pronto Mdl. #3259, 75 psig
1-200 Sq. Ft., SS, Hercules, Horiz.
1-191 Sq. Ft. Enzinger, SS, Vert., 75 psi
1 - 157.64 sq. Ft. Sparkler model 55-5-28, 316SS
1-150 Sq. Ft. Horiz., 12 Vert. Leaf 316SS
1-135 Sq. Ft. Ni, Bowser, Vert.
1-35 Sq. Ft. Hercules Model 5, 316 SS, horiz. tank vert leaves 50 psi
1-Sparkler Mdl.#18 D 12, SS const.
1-Sparkler Mdl.#18 D 4, constr.
1-Sparkler Mdl.#33S 28, constr.

Rotary Vacuum
1-56.5 Sq. Ft. KS, Inconel 600
1-56.5 Sq. Ft. K-S, 316SS, flexibelt disch.
1-87.92 Sq. Ft. Feinc, SS wetted parts, spring disch., 56" dia. x 6' face drum
1-132 Sq. Ft. Dorr Oliver, 304SS, maxibelt disch.
1-200 Sq. Ft. Eimco, 316SS, 8'x8'
4-250 Sq. Ft. D.O. 316L SS Precoat, 8" x10', sanit
1-250 Sq. Ft. K-S 316SS, coil disch.
1-300 Sq. Ft. Eimco, 316SS wetted parts, precoat type w/knife disch., 10" dia. x 10' drum, complt. w/control panel & aux. equipment
1-314 Sq. Ft. Eimco, precoat disch., 316SS
1-400 Sq. Ft. Eimco, CS, Precoat
1-500 Sq. Ft. Eimco, 316SS, belt disch.
1-3'x1' 316SS, knife disch.
1-3'x1' Dorr Oliver, FRP w/receiver & Nash H4 vac. pump, 10 HP
1-3'x 1' K-S comp. sys., 316 SS Flex-belt disch

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REACTORS

Glass Lined
4,000 Gal. Pfaudler, 100/90 psi, TW
4,000 gal Pfaudler, 50/30 psi
3,700 gal Glascote, 50 & FV/90 psi
3,000 gal Glascote, 50 &FV/ 90 psi
3000 gal Pfaudler, 75/90 psi
2,000 gal Pfaudler, 75/90 psi
1,000 Gal. Pfaudler, 100&FV/90 psi, 4RW
1,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4DW
1,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4TW
800 Gal. SS clad, 60/60 psi
750 gal. DeDietrick, Phila drive
500 Gal. Pfaudler, 100&FV/85 psi, BH drive

Stainless Steel
4,000 Gal. 316SS, Atmos./50 psi, withcoils
3,000 Gal. 347SS Blaw Knox, 150/50 psi
2,500 Gal. 316L SS, 75/75 psi, 150 psi int. coils
2000 Gal. Nooter Autoclave, 316L 2000 psi, FV int. coils
2,000 Gal. Dusenberg, 316 SS, 15/35 & FV int., 50 psi jkt.
1,750 Gal. 316SS Nolte, 1467/50 psi
1,500 Gal. 304SS, 10 HP Lightnin
1,500 Gal. 304 SS, 100/30 psi
1,000 Gal. 304SS, 250/80 psi
1,000 Gal. 316SS, 50/75 psi jkt
1,000 Gal. 316 SS, 15 & FV/50, 10 HP
1,000 Gal. 316 SS, 100/30 10 HP
750 Gal. 316SS, 75 & FV/50 psi
750 Gal. 304SS, 50/60 psi
600 Gal. 316SS, 3000psi, 10 HP
600 Gal. SS, 50 psi, 1.5 HP XP
500 Gal. 316SS, 55 & FV/65 psi
450 SS, 50/75 psi
100 Gal. 316SS, 15/50 psi
100 Gal. 316ELC SS, 500/90 psi

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4-DRAIS SAND MILLS, TYPE PM-60-STS-DDA. MANUFACTURED 1984-85.
PRICED TO SELL • CALL FOR DETAILS

COFFEE PLANT LIQUIDATION

(1) Mdl. #DASO-6 Fitzmill w/15 HP motor, on stand.
(1) Mdl. #D-6 Fitzmill w/15 HP main motor & 2 HP on stand.
(1) Mdl. #2DH Micro-Pulverizer.
(1) Mdl. #3TH Micro-Pulverizer, SS, w/40 HP main motor & ¼ HP screw motors.
(1) Micro-Pulsair SS Reverse Jet Dust Collector, Model #64-S-8-20.
(1) 8" x 42" Votator Scrapped Surface Heat Exchanger, w/5 HP motor & jckt.
(1) 48" Sweco Single Deck Screen w/cover, SS constr., 1 HP
(1) 32" w. x 8' lg. Witte Vibrating Conveyor, SS, w/cover, 2-deck.
(1) 2'x6' Witte SS Fluid Bed Dryer w/perf. plate.
(1) 32" W. x 13' Sandvick Belt Flaker, SS, 5' cooling section.
(1) Stokes Freeze Dryer System, complt. w/prebreaker, micro-vac. & York chiller.
(1) Reitz Disintergrator, 30 HP, Model #RP12-K122.
(2) Jones Dewatering Presses.
(1) 1500 Gal. SS Jcktd. Mix Tank, 3 HP, dished top, flat bottom.
(2) 2000 Gal. SS Mix Tanks, sanitary fittings.
(2) 1500 Gal. SS Mix Tanks, sanitary fittings, ¾ HP Lightnin.
(1) 2000 Gal. SS Mix Tank, sanitary fittings, 3 HP Lightnin.
(2) 2000 Gal. SS Storage Tanks.
(2) 1500 Gal. SS Mix Tanks, sanitary fittings, 3 HP Lightnin.
(1) 1000 Gal. SS Storage Tank, agitator mount, (no agitator)
(1) 1000 Gal. SS Jcktd. Mix Tank, atmos. int., 150 psi jckt.
(3) 1500 Gal. SS Mix Tanks, 3 HP Lightnin.
(1) Gaulin Homogenizer, KL 61 BS, Type 620 HG, SS.
(1) Gaulin Homogenizer, KL 36 BS, Type 120 HG, SS.
(2) 22' Dia. Spery Dryers, complete system.

FOR ADDITIONAL INFORMATION-CALL IDM TODAY...

RECENT PURCHASES

(1) Carrier 2'x46' Vibrating fluid dryer, 316SS
(1) Podbielniak mdl. #9700-2 Cent., 250 PSI
(1) 5,000 gal. CS, Vertical Sphere, Rated 1007 PSIG
(2) 12¾' dia.x307¾' Long Packed Col. 304SS, 275 design pres.
(1) 64 sq.ft. U-Tube Heat Exchanger, all 316SS 75/150 psi
(1) 86 sq.ft. Heat Exchanger, all 316SS 75/450 psi
(1) 88 sq.ft. Heat Exchanger, CS/SS 75/450 psi
(1) 90 sq.ft. Heat Exchanger, CS/SS 75/75 psi
(1) 680 sq.ft. Heat Exchanger, CS/SS 75 PSI Shell
(1) 1005 sq.ft. Heat Exchanger, All 316SS 75/150 PSI
(1) 1401 sq.ft. Reboiled CS/SS 75/150 PSI
(3) 550 gal. Lavua Lined Plastic Tanks 4'dia.x5½' st.sd.
(3) Fairbanks Morse Gas Compressor 3380 CFM 600 h.p.
(2) I-R Type ESV Compressors 30 HP
(1) GATX Fuller Air Compressor 50 HP
(1) Corken Compressor 7.5 HP

MIXERS

4.5 Gal. Kneader Master Cont., SS w/jkt.
5 Gal. AMK 304SS Jcktd. Kneader Extruder
15 Gal. W.C. Readco Sigma Blade Dbl. arm
25 gal. Readco DBL/Arm Sigma Blade jktd. SS construction 15 H.P.
80 Gal. Hockmeyer Pony, SS contacts, 7.5 HP varispeed
100 Gal., SS, Sigma Blade, Jcktd. 40 HP
200 gal. W-P CS dble arm Sigma blade, 20 HP
250 gal. AMK Kneader Extruder, Sigma Blades, CS construc, 40 psig, trough jkt.
500 liter Welex hi intensity, SS contact parts
500 Gal. S-W Rubber Cement, CS, 2-10 HP motors (2)
Unused 1000 Gal. Sanitary 316SS B-K Dbl. Motion Change Can; 100&FV/165 PSI, 125HP
Littleford Model FKM-600D, SS
Littleford Model FKM-600S, SS
Littleford Model FKM-2000, SS, w/choppers
Littleford Model MBX-70
7 Cu. Ft. 304SS Nauta Model
10.6 Cu. Ft. Nauta D-105, CS
Welding Eng. Model 2FV1V25 Twin screw Extruder, SS, Contacts, 150 psi
Koehring mdl. 350, 40 HP
NEW/NEVER USED 75/37.5 HP Hockmeyer Disperser

PLUS LOTS - LOTS MORE

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STRONG SCOTT SOLIDAIRE DRYERS

-Mdl SJS-24-16, 24" dia x 16' lg, 304 S/ST, dimple jacket, 50 HP vari drv.
-Mdl SJS8X523, 8" dia x 52" lg, inconel, jacketed, pilot size.
-Mdl SJI-42-22, 42" dia x 22' lg, Incoloy 800 w/carbon steel jacket,- 100 HP exp prf mtr. (2)
-Mdl SJI-54-32, 54" dia x 32' lg, incoloy 800 w/carbon steel jacket, 125 HP exp prf mtr. (2)

WEIGMAN & ROSE INCONEL REACTORS

850 gallon, 150 PSI internal, jacketed & coiled w/turbine agitator.
THREE AVAILABLE

FILTERS

-Plate & Frame, 36"x36", Shriver, Polypropylene.
[illegible]

DRYERS

-Apron, Proctor Schwartz, 8' x 46', S/ST.
-Apron, Proctor Schwartz, 8'8" x 20'.
-Double drum, 42"x120", vacuum.
-Double drum, Blaw Knox, 36"x72", S/ST rolls.
-Fluid bed, S/ST, Carrier, continuous, 22"x14'.
-Mixer, vacuum, conical, Paul O. Abbe, 13 cu. ft.
-Rotary, 10' x 40', 304 S/ST, ⅜" thkl sh.
-Rotary, 6'x40', Aeroglide, carbon steel, gas.
-Roto Louvre, mdl 1003-36, 10'3" x 36', 50 HP.
-Rotary, vacuum, Strong Scott, Continuator.
-Rotary, vacuum, Strong Scott, Solidaire, Incoloy 800. (2)
-Rotary, vacuum, Strong Scott, Solidaire, SJI-42-22, Incoloy 800. (2)
-Rotary, vacuum, Solidaire, 42" x 28', carbon steel.
-Rotary, vacuum, Patterson Kelley, 1 cu. ft., S/ST.
-Tray, Stokes, mdl 38-4, 5 trays, 28" x 34", S/ST.
-Tray, vacuum, Stokes, mdl 128J-, carbon steel.
-Spray, Niro, atomizer, lab sz, 2'7" x 2'7". (2)
-Wyssmont, turbo, mdl L12, 12 - 40" dia S/ST trays.

EIMCO HORIZONTAL BELT

2' x 5', S/ST w/poly belt, competo system w/vacuum pump & drive.
2'x8', S/ST, w/poly belt, complete system w/vacuum pump & drive.

EIMCOMET ROTARY VACUUM PRECOAT FILTERS

6' dia x 8' wd, S/ST, system includes drives, vacuum pump & receiver.
TWO AVAILABLE

POLYPROPYLENE FILTER PRESSES

Shriver 36" x 36", closed delivery, 1⅞" thick frames, hydraulic closing system
FOUR IN STOCK

STRONG SCOTT ROTARY VACUUM CONTINUATOR DRYER

316 S/ST, mdl CRJ-S84-29, 1100 cu. ft., 150 HP drive, 550 sq. ft. of heat transfer area, 84" dia x 29' lg.
NEW 1986

EIMCO BELT FILTER

8'x8', S/ST, w/polypropylene belt.
TWO IN STOCK

BIRD DECANTER

36" x 72", inconel, 10 deg. cylinder, 150 HP motor, complete w/washout assembly, gauges, valves, circulating oil-system, oil pump & filter.
TWO IN STOCK

MILLS

-Disintegrator, Rietz, RD-18-K122, carbon steel.
-Fitzpatrick, DKASO12, water cooled bearings. (4)
-Fitzpatrick, DASO6, S/ST, fixed blades.
-Hammer, Williams, 24" x 54", Flextooth, mdl 280.
-Hammer, Jeffrey, 24" x 30", Flex Tooth Crusher
[illegible]

LINK BELT ROTO LOUVRE DRYER

10'3" x 36' lb, mdl 1003-36, complete system incl 50 HP drive, firebox w/200,000,000 BTU gas burner, all fans, duct work & controls, multi-cyclone collector, Sly 30,000 CFM baghouse.
EXCELLENT CONDITION-STILL INSTALLED
CALL FOR FOB PRICING

RAYMOND ROLLER MILLS

(3) Raymond high side roller mills, mdl 5057, double whizzer separator, fan, feeder, cyclone, duct work & bucket elevator.

CENTRIFUGES

-Perf. bskt, Tolhurst, 20" x 12", S/ST.
-Solid bskt, Sharples, SP5500, 48" x 30", 316 S/ST.
-D-canter, Bird, 40"x60", 316 ELC. (11)
-D-canter, Bird, 36"x96", 317 S/ST.
[illegible]

WYSSMONT DRYER

Mdl N-22, 8' dia trays 22 high, w/S/ST contact parts. May be shipped in one piece, steam heated.

FLUID BED DRYER

Jeffrey fluid bed dryer, 5'x20', 304 sanitary construction, complete installation including fans, dust collector, S/ST scrubber & controls.

ROTO LOUVRE DRYER

Mdl 900-32, 9' dia x 32' lg, steam heated, 30 HP motor, all fans & Flex-Clean dust collector

MIXERS

[illegible]

INDUSTRIAL PRESSURE LEAF FILTERS

(1) 800 sq. ft. & (1) 200 sq. ft. Rubber lined tank, quick opening pneumatic door, retractable tank assembly.
SAN FRANCISCO STOCK

WESTFALIA CENTRIFUGE

Type SB80-06-177, SST, w/7 HP DRIVE.
NEW 1981

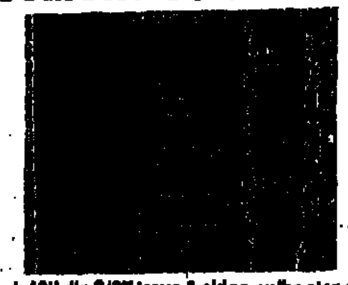
SHARPLES P3400 DECANTER

Mdl 70-3400-384, 316 S/ST, unitized on stand.
SAN FRANCISCO STOCK

BIRD DECANTER CENTRIFUGES

40"x60", 316 S/ST, 15/30 deg. contour bowl, 100 HP drive.
EXCELLENT CONDITION--10 IN STOCK

WYSSMONT TURBO DRYER



Mdl L-12, S/ST, steam heated, 48" dia S/ST trays & sides, w/heater controls, radiator & feed system.

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PLANT WAS IN OPERATION THRU APRIL OF 1986
COMPLETE PLANT EQUIPMENT FOR SALE INCLUDING:
PILOT...FULL SCALE MANUFACTURING EQUIPMENT, PLANT UTILITIES

COMPLETE SYSTEMS

CENTRIFUGES

ALL316SS EQUIPMENT COMPLETE WITH CONTROLS, PLOWS, SET UP FOR NITROGEN PURGE EACH INDIVIDUALLY SKID MOUNTED
48"x24", 40"x24" SHARPLES SS, HYDRAULIC DRIVE (5)

VACUUM DRYERS

DOUBLE CONE VACUUM SYSTEMS: DEDIETRICH G/L, 60 CU. FT.
PFAUDLER G/L, 70 CU. FT.
DEVINE 316SS, (1) 30, (2) 70, (2) 90 CU. FT. SYSTEMS
316SS ROTARY VACUUM DRYER SYSTEMS: (3) 142, (1) 120 CU. FT.
SHELF: 6 VACUUM DRYER SYSTEMS
VARIOUS SIZES & MATERIALS OF CONSTRUCTION
SS & CS ROTARY VAC. DRYERS: 125, 100, 90, 80, CU. FT.

FILTERS

FILTER PRESSES: ERTEL PRESSURE LEAF (6)
STAR 10" DIA., 19 & 21 CHAMBERS, SS
SPERRY 56", 26 & 35 CHAMBERS (4)
VACUUM BELT EXTRACTORS: 2 EIMCO 2'x12',310SS VAC. BELT FILTER SYSTEMS
40 FILTER PRESSES 42" 43" 48" 50" POLY PRO, R/I. CAST IRON
4 PASSAVANT MDL. 200 VAC-U-PRESS BELT FILTERS, 250 SQ. FT

MILLS

BAUERMEISTER TURBOMILL, 40 HP, COMPLETE SYSTEM
FITZPATRICK MDL. D6 DASO 7.5 HP COMMINUTORS 7.5 HP
FITZMILL MDL. DKSO12 COMMINUTOR
ENTOLETER MILL 5 HP, MDL. M1112G1-23

OTHER EQUIPMENT... CHILLERS...COMPRESSORS...
FIRE PREVENTION EQUIPMENT... MIXERS... PUMPS...
DISTILLATION EQUIPMENT

REACTOR SYSTEMS

GLASS LINED: (1) 3,000, (7) 2,000, (22) 1,000, (8) 500, (2) 300 (1) 200, (1) 130, (4) 100, (4) 50, (1) 30, GALLON

ALL REACTORS EQUIPPED WITH TW DRIVES, MECHANICAL SEALS MANY WITH VARIABLE SPEED DRIVES, GLASS RECEIVERS & GRAPHITE HEAT EXCHANGER
STAINLESS STEEL 316 & 316 ELC:(1) 4,000, (1) 3,000, (3) 2200, (6) 2,000, (1) 1,300, (2) 1,250, (9) 1,100, (7) 500, (2) 300, (1) 10 GALLON

11 SS JKT. AGIT. KETTLES FROM 750 GAL. TO 5,000 GAL.

TANKS/RECEIVERS

GLASS LINED RECEIVERS & CHEMSTORS
(2) 2,000, (10) 1,000 (1) 500, (4) 250, (5) 100, (2) 50 GALLON

STAINLESS STEEL
(1) 5,000, (1) 4,000 (1) 3,000, (8) 2,000 (3) 1,500, (4) 1,000, (1) 800, (7) 500, (1) 300, (3) 250, (5) 200, (1) 150, (3) 100, (3) 50 GALLON

TANK FARMS

GLASS LINED: (2) 10,000, (1) 5,000, (2) 2,000 GALLON
STAINLESS STEEL 316SS & 316LSS: (10) 10,000, (1) 8,000 (3) 7,500, (2) 6,000, (3) 5,000 (3) 4,000 GALLON
KYNAR LINED: 30,000 GALLON
HERESITE LINED: (1) 10,000 GALLON
LITHCOTE: (1) 10,000 GALLON
RUBBER LINED: (3) 10,000 GALLON
FRP: (1) 12,000 GALLON
STEEL: (1) 15,000 (1) 8,000, (2) 6,000, (7) 1,000 GALLON

IF YOU ARE BUILDING A NEW CHEMICAL PLANT OR EXPANDING A PROCESS YOU MUST VISIT THIS LIQUIDATION SITE

– SPECIAL –

750 GAL. 304 SS READCO MIXER SIGMA
SHARPLES SS MODEL P-3400 CENTRIFUGE (3)
6M² ROSENMUND (NUTSCHE TYPE) 316 SS FILTER

2 –POWDERED COATING PLANTS

Fine grinding lines
Spray drying lines
Compunding lines
Packaging systems
Full laboratory
Equipment installed and can be operated in place-All equipment New 1980's- We will sell/rent/lease.
Call for further details

ALABAMA PLANT LIQUIDATION

(3) 290 CU. FT 316 SS ROT. VAC DRYER SYSTEMS
10'x14' EIMCO ROT. VAC. FILTER
NASH MODEL H9 VAC. PUMP W/FULLER V300 VAC. BOOSTER PUMP
REACTORS:
100FV/150FV JKT
(4) 3,000 GAL. 316 SS 60/30 HP AGIT. 100 PSI INT. W/COILS
(1) 3,000 GAL. SS 30 HP, 61 W, 300 PSI INT. W/COILS
(2) 2,000 GAL. 316 L SS, 75/200 PSI JKT
TANKS:
15,000 GAL. 316 LSS AGIT. 10'6x 23'
5,500 GAL. MONEL VERTICAL (3)
3,000 GAL. MONEL VERTICAL
2,200 GAL. MONEL VERTICAL (2)
4,000 GAL. G/L PFAUDLER CHEMSTOR 30 PSI
SS HEAT EXCHANGERS FROM 100 TO 500 SQ. FT.
MANY MISC ITEMS

2 INDUSTRIAL SITES AVAILABLE IMMEDIATELY

Niagara Falls/New York Area
700,000 Sq. Ft. Buildings... 50 acres of land
750,000 Sq. Ft. Buildings... 35 acres of land
Plants manufactured Carbon Electrodes
Equipment Highlights:
5 Model 5057 Raymond Hi-Side Roller Mills in operation till Sept. 1986
40 High-Intensity CS jkt. mixers similar to Littleford's
Electrical sub staions and switch gear
Dust Collectors and Material Handling Systems
Carbon Extrusions Extruders/ 75", 40", 30", & 22"
84" Lathe... New in 1974
14000 Ton United Hydraulic Downstroke forging & forming press
Complete vertical Autoclave System... 13' dia x 26'4", 347 SS, 150 psi & 0.1 MM vac. & @ 700°F
Complete in plant Railroad... flat cars/hopper cars/locomotive

UPE WILL SELL/RENT/LEASE COMPLETE FACILITIES OR SELL EQUIPMENT PIECEMEAL CONTACT: RON GALE FOR DETAILS 609-443-4545

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250,000,000 CU. FT./DAY
COMPRISED OF TWO TRAINS ON 60 ACRES OF LAND
WE WILL SELL ENTIRE FACILITY OR INDIVIDUAL

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UPE TO RECEIVE OUR FREE 300 PAGE ENCYCLOPEDIA OF CHEMICAL PROCESS EQUIPMENT CALL OUR TOLL FREE NUMBER 800 CHEM-CAT (800-243-6228) IN N.J. - 609-443-4545 UPE

AARON EQUIPMENT COMPANY

DIVISION ARECO, INCORPORATED
735 EAST GREEN STREET
P.O. BOX 80
BENSENVILLE, IL 60106
(312) 350-2200
TX 28-9454 CABLE AARONEQCO

QUALITY EQUIPMENT AT COMPETIVE PRICES

JUST PURCHASED

22344- Christian Ribbon Blender, 30 cu. ft., C/S dbl spiral Ribbon Inner & Outer

22449-Gemco 10 cu. ft. S/S, jkt. L/S processor
- Conair Water Chillers, 7.5 ton. (3)
- Conair mod. Plow-15 ton.
- Acrison mod .203-1052, 1½", 2½", 4" auger w/ drives. (3)
- Sparkler mod 18S11, T304 S/S
- Walter 750 gal. reactor, FV/100 lb., jkt. 40 lb., 30 HP vari dual motion.
- Walter 225 gal. reactor, FV/100 lb., jkt. 40 lb., 10 HP vari dual motion.

Stokes mod. 280 F, 100 ton press.
22435-Miell Mixer, 250 G. sigma, S/S, jkt., vac, 100 HP
22448-B.P. 100 gal. Sigma, S&S, tilt.
22447-Dyna Mill mod. KD200, horiz. (2)
22446-Pfaudler 30 gal. G/L reactor (2)
22439-B.P. 100 gal. Sigma, S/S
22440-B.P. 200 gal. Sigma, tilt.
22441-Pappenmeier 600 gal. Liter Mixer/Coller
22460-P.K. twin shell blender, 1 cu. ft. 325 lbs/cu. ft. L/S stainless, w/drives 5 HP bar, ¾ HP main.
22461-P.K. 1 cu. ft., S&S, 275 lb. density, 30 lb. jkt., vac., ¾ HP vari speed main, 2 HP bar.
22314-Sharples #16 Super Centrifuge S/S, 3 HP, cooling coils clarifier (22)
22351-Atlas Copco air compressor, 600 CFM @ 125 psi, 125 HP. (5)
22198-Gouda Flaker, 4'x4' stainless steel.
22199-Gouda Flaker, 4'x4' stainless steel.
22344-Christian ribbon mixer, 36 cu. ft. steel jacket, 7.5 HP, unitized.
22342-Sheet extrusion line, Prodex 4.5", 24:1 L/D, 50 HP, stheet die, chill roll stack, Famco shear.
22343-NRM Terret Winder, 48-46 w/2 adjusto speed motors, 1 HP
22346-Sheet Coater, 54" steam heated.

MIXER/EXTRUDER

22352-Twin screw extruder (NA Bitruder Co), 65 mm, elect. heated, 20 HP DC,pellett die, vac pump used 100 hours
17654-AMK 25 gal. Mixtruder, Sigma, ST 7.5 HP.
18298-J.H. Day 25 gal. Dispersion, 25 HP vari main, 10 HP vari screw.
20996-AMK 30 gal. S/S, jkt. Sigma, 7.5 HP Main, 6 HP screw.
21334-Ross 40 gal., S/S hot oil jkt., Sigma 6" disch. screw.
19826-AMK 50 gal. ST, jkt., Sigma.
19421-AMK 75 gal. ST, jkt., Sigma, 10" disch. screw.
17138-AMK 120 gal., ST Sigma, 11.5" screw.
14832-AMK 150 gal, S/S, Sigma 15HP main, 10HP screw
19494-AMK 150 gal., S/S Sigma, 50 HP main, 10HP screw
20116-AMK 150 gal., ST, Sigma, 15 HP/10 HP
503527-New Aaron 300 gal., T304SS, mix extruder, Sigma, jkt., up to 200 HP main, 75 HP hyd. screw.
STILL INSTALLED . . . CALL NOW!
504528 - Aaron 300 gal. mixer/extruder T304SS,Sigma 150 HP, screw 75 HP hyd. jkt. 200 psi

21350-B.P. 500 gal. Sigma steel, jkt. 125 psi,150 HP, Hyd. tilt
Vac Cover, Excellent Condition
Call Steve (312) 350 - 2200

MIXERS – PLOW

503755-Littleford, FKM 600D, SS jacketed, 25 HP.
20754-Littleford, FKM 3000D 65 CF, S/S, full jacket.
19214-New Plow Mixer, 80 cu. ft. 347SS, jacket, 100HP.
20829-Littleford FKM 4200D, S/S, 87 cu. ft. JKT.

MIXER RIBBON

21120-Ribbon Blender, S/S, 10 cu. ft., jkt. SS, 150 psi.
20276-Read ribbon blender, 14.7 cu. ft. 304SS, 3 HP.
20816-Unused Day, 316SS, 23 cu. ft., 5HP.
20189-Robinson, 25 cu. ft., S/S, jacket, 10 HP.
20965-Int'l 34 cu. ft. S/S dbl. ribbon, 5 HP. (4)
20212-Haas ribbon, 36 cu. ft., S/S, 15 HP.
19286-Ribbon Mix 80 cu. ft. T304 SS, 5 HP (4)
19568-Howe, 115 cu. ft., sanitary S/S, double spiral ribbon.
20963-Strong Scott blender, 130 cu. ft., 304SS, 25 XP gear motor.
21124-Ribbon Blender, 304SS jkt., 160 cu. ft., 30 HP.
20814-Unused JH Day ribbon, S/S 270 cu. ft., 25 HP.
21114-JH Day ribbon blender, S/S clad, 75 HP, 480 cu.ft.

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
20534-Sperry Filter Press, 30", alumn.
20539-Sperry filter press 30", 35 Aluminum plates, 357 sq.
15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet closing.
15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates.
19799-Clow/Bethlehem filter press, 36", recess plates, 25 chambers.
20076-Sperry filter press, 36", cast iron plates, closed deliv.
19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" Ehd closer, 41 alum. plates.

CANADIAN BUYERS
LIQUIDATION–QUEBEC

22373–Reactor, 3500 gal. 8'x9'H, S/S clad, agit, dimple jacket.
22381–Reactor, 5000 gal. 10'x92"H, T316S clad, internal 330 lb., jkt 75 lb., agit 30 HP, vari speed. (2)
22379–Philadelphia, 7V63 agit drives, 10 HP, S/S (4)
22386–Siebtechnik H-400 centrifuge conturbex horz. screen, S/S, 20 HP.
22365–Climatrol water chiller LFV151172, 40 tons.
22385–Cyclone Sepeartor, 40" dia. x 2' plus 6" cone, S/S, Joy fan 15 HP.
22375–Sweco 30", 3 deck, S/S, ½ HP (2)
22387–Waukesha mod. 300, Sani pump, 6"x6", 15 HP.

FILTER-ROTARY VAC.

15828-FE,Inc. 36" dia.x12", S/S, string disc., 1/2 HP.
17477-FE, inc., 3' dia x 6', T316SS, belt disc., vac pump.
11177-Dorr Olver S/S, 5' dia. x 6'L.
11653-Oliver T-316SS, precoat 5'3"x8'.
19431-K.S. flexibelt, 6' dia. x 6' face, 316SS.
18392-Eimco belt filter, 8'x10', steel drum, w/Nash pumps
15827-Ametek, 8' dia.x14'0" face, maxi-belt, S/S.
17936-Eimco, 316SS, 10' dia. x 14', knife discharge.
17283-Impco belt filter, 12' dia. x 12', 304SS, Nash vacuum.
20251-K.S. T304, vacuum filter, 12' dia x 14', 304SS.
20323-Dorr Oliver 11'6"x16' face, S/S cont. parts.
11486-Eimco 10'x10'rotary vac. filter.

PRESSES

UNUSED Manesty Express, 10 ton, 20 stations.
11602-Colton Press mod.260, 31 die stations, 1800 TAB.
21382-FJ Stokes rotary tablet, 15 station, 10 ton.
21418-Manesty rotary tablet, 16 station, 10 ton.
14425-Stokes Tab Press mod.#551, 51 station, 4 ton.
21417-FJ Stokes rotary, 27 station, 4 ton, double sided.
503881-Komerak Greaves, mdl. 75MSS briquetting press, 20.5" dia. x 4.5" face.
13392-Fitzpatrick Chilsonator, 50 HP, mdl. HA-50-30-210.
18802-Stokes single pucnh press, 900-530-1 (T4), 12 ton.
17224-Dorst compac., series TPA15, 20 tons.
10890-Stokes, mdl. R-4 press, 20 ton.

22215-Wilmes Bladder Press, S/S, 38" dia. x 9'9" long, horiz, 5 HP, unitized. (2)

DUST COLLECTORS

21125-Fabri-Jet mdl.SQ9-4B bin vent, 42 sq. ft.
16398-Mikro dust collector, S/S, 63 sq. ft., mdl. 9-6-100, pulse jet.
21153-EVO, bin vent, 72 sq. ft., S/S, 5 HP
20253-Unused EVO pulse jet collector, mdl. 84BF009C, 90 sq. ft.
21192-JH Day mdl. RJ-18RJ38, 125 sq. ft., CS, 3 HP.
21222-Fabri-Jet, mdl. SQ16-80, 151 sq. ft.
20398-Pulse jet collector, "FlexKleen," mdl. 58CT24 AV II w/176 sq. ft., cloth, C.S.
21288-Mikro dust collector, 285 sq. ft., S/S.
20258-Unused EVO Corp. pulse jet dust collector, mdl. 99BF030C, 350 sq. ft.
20255-Unused EVO Corp. dust collector, shaker type, mdl. MS049C10, 578 sq. ft.

SCREENS

21203-Sprout Waldron sifter, D10, 6 decks,
21150-Sprout Waldron, D10, 1 HP, 10 decks, S/S cont.
21167-Sprout Waldron, D10, 2HP, 10 decks, S/S cont.

UNUSED CENTRIFUGES

21593-Sharples P5400 Sanitary Centrifuges w/200 HP motor, 25 HP backdrive, gearbox, 5" pitch conveyor, CIP, control panel (2) LATE MODEL

CENTRIFUGES

20827-Bird, 18"x24" steel, conical bowl.
20826-Bird, 24"x38" steel, con. bowl, gearbox.
20819-Bird, 24"x38", S/S, 15 degree, contour bowl.
20884-Bird 24"x60", H series, steel w/motor.
20364-Bird 32"x 50", SS T316 contour, 75HP.
12883-Bird 36"x96" contour, 10 deg., T317 ELC.
20137-Alfa Laval, NX 418-B31-60, 316SS, gearbox.
17308-Dorr Oliver, 304SS, Merco mdl. 16L, 30 HP.
13566-Sharples, mdl. P 600, gearbox, motor.
19767-Unused Sharples, 3 phase, P3000, S/S, carbide.
20407-Sharples P2000 316SS, 20 HP drive motor.
21359-Sharples P3000 w/gearbox.
20686-Sharples P3000, 52:1 gearbox, S/S casting.
21725-Sharples, P3400, S/S, gearbox & motor.
19249-Sharples, P5400, 316/317SS, 200 HP, gearbox

CENT-BASKET VERT.

21408-Delaval 22"x16" perf. basket hyd drive.
15815-Delaval Mark III, perf. basket, 40"x24", 316SS, 30 HP, hydr., drive.
19446-Sharples Sludge-Pak, SP-5500, 40"x24" basket centrifuge.

ROTARY VAC DRYER

22210–Bertrams, S/S 6'dia. x 12' dished heads, half pipe coil jacket 200 psi, 20/13 HP, unitized.

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
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19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" Ehd closer, 41 alum. plates.

Special Sale

MUST MOVE STAINLESS TANKS
12,000 GAL., T304SS, 12'Dia.x 14' high, flat bottom, open top (16)
PRICE $8000 ea. FOB PA #20655

TANKS-S/S

22257-UNUSED Tank, 100 gal., T304SS, 30" dia., DH
22253-UNUSED Tank, 550 gal., T304SS, 4' OD, DH.
22256-UNUSED Tank, 1200 gal., T304SS, 5' dia. x7'H, DH.
21263-Tank, S/S vert., 1200 gal., 6' dia.x6', flat top & bot.
22255-UNUSED Tank, 1800 gal., T304SS, 6'6" dia. x 7'3"
22254-UNUSED Tank, 3,000 gal., T304SS, vac., 5'dia x 21'H, coil,
20651-Tank, SS, 9000 gal., agit., 12' dia. x 14'6" H.
20655-Tank, SS, 12000 gal., 12' dia. x 14', flat bottom, open top.
17043-Joe Oat horz. tank, 304SS, 16,000 gal., 12'6" dia. x 22'9½" long, 10 PSI.

REACTORS

20252-Unused Reactor, 600 gal., 304SS dimple jktd.
10158-Pfaudler, 800 gal., T-316 L SS, 55 PSI int/150 PSI.
20928-Brighton, 4000 gal., 8' dia. x 10', 316ELC S/S
20456-Reactor, 4,000 gal., 316 S/S, 8' dia. x 7'9" st. side.
18475-Brighton, 4000 gal., 316SS, vacuum.
20287-GH Hicks, 4000 gal., 316 SS, pipe coil jkt.
20923-Richmond Eng. Reactor, 4600 gal., T316 stain/clad.
Pfaudler 10,000 gal. reactor T316L, 100 psi int, 180 psi.
Pfaudler 15,000 gal. reactor T316L, 100 psi int., 200 psi jkt.

LIQUIDATION SALE
LARGE POLYSTYRENE PLANT
ILLINOIS LOCATION

21899-Pfaudler Reactor, 1,500 gal., 316L SS dimple jkt.
21896-Pfaudler Reactor, 10,000 gal. 316L SS clad, 60 HP. (4)
21900-Pfaudler Reactor, 15,000 gal. 316L SS dimple jkt. (3)
21897-Metal Arts Corp. vessel, 17,000 gal. vert. 317L SS. (2)
21898-Brighton Corp. Tank, 12,000 gal. vert., solid 316L SS. (2)
21875-Bins, 176 cu. ft., S/S, cone bottom flat top. (4)
21891-Bins, 450 cu. ft., C/S, epoxy lined. (8)
21904-Bins, 450 cu. ft., C/S, epoxy lined. (6)
21905-Bins, 500 cu. ft., C/S, epoxy lined, flat top, conical bottom. (4)
21918-Worthington cent. pump, C/S, 15 HP, 200 GPM at 44 psig (2)
21916-Union Pump-inline, C/S, mod. 4x6x8.5 VCK, 40 HP. (4)
21906-Edw Renneburg Rot. Dryer, S/S, steam heat, 10 HP. (4)
21881-Heaters, C/S steam, type BNF 2420 (8)
21914-Flotronics bin vent, filters, 122 sq. ft., 12 bags.
21889-Ketron Feeder twin screw, S/S mod.5400-150 (4)
21901-Sparkler filter, 352 sq. ft. C/S, mod. VR-32-32.
21882-Screw conveyor, 304 SS, 7" dia. x 11L, 1.5 HP.
21888-Strong Scott Rib Blender, 25 cu. ft., 5 HP. (3)
21920-Welex extruder 6", 30:1 L/D, 400 HP.
21870-Welex extruder 8", 30:1 L/D, 600 HP.
21876-Conair pelletizer, S/S, mod. 1024, 40 HP. (2)
21874-Water bath, S/S, portable. (4)
21887-Ross Static Mixer, 304SS, 3"x6 element. (4)
21917-Ingersol Rand pump, in-line pump, C/S, 30 HP.
21915-Goulds, C/S turbine pump, 200 HP. (2)
21913-Worthington cent. pump, S&S, 2 HP. (4)
21912-Union pump-inline, S/S, 7.5 HP (2)
21910-Tank, 840 gal., flat top & bottom.
21920-Modern Welding Tank, 4800 gal. horiz. rubber lined.
21878-Gorman Rupp pump, centrifugal C/S, mod. 82EZ. (2)
21871-Prodex extruder 8", 30:1 L/D ratio, 600 HP.
21892-Buffalo blower, size 30, C/S, 10 HP (3)
21908-Buffalo exhaust fan, size 36, type B, 15 HP.
21880-Sutor Bill Blower, C/S, 40 HP. (4)
21922-Buffalo blower, type 40-3CB, 40 HP. (4)
21894-Buffalo blower, mod. 45-3CB, 75 HP. (3)
21883-Bird, 32x 50 centrifuge, 80:1 gearbox. (2)

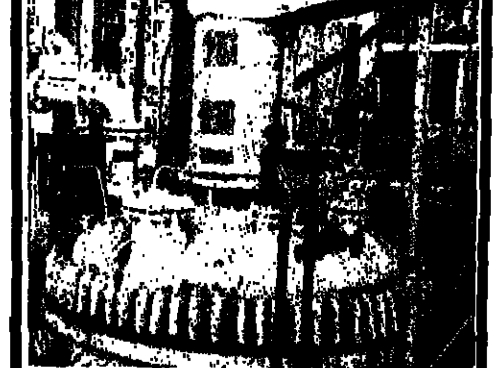
21883-Bird Centrifuge, 32x50. 80:1 gearbox.

21893-Environeering scrubber, mod. A33-14000
21895-Tank, 850 gal. vert. coal tar epoxy lined.
21911-Tank, 54000 gal. vert. C/S epoxy coated flat top/bot.
21903-Tank, 50,000 gal. vert. C/S epoxy, flat bot. conical top.
21902-Worthington compressor, mod. 4BB-2, vert. 125 psi. (2)
21879-Sweco sifter 60", mod. LS60S88, 2.5 HP.
21923-Kason sifter 60", mod. K6018S, S/S, 1HP.
21884-Flotronics Cyclone mod. FTHEC370-T, 304 S/S 12" dia. dish top. (3)

ATTENTION: EAST COAST BUYERS!

61,000 gal. Tanks, T304SS, 18'dia.x32'H, flat top & bot., Chemineer Agit., mod 7HTD-20, 20 HP, 27 RPM. (4)

PERRY SAVES YOU TIME & MONEY... The Right Equipment At The Right Price... World's Largest Dealers... Phone (609) 267-1600



KETTLES-REACTORS, SS

30,000 gal. 304SS fermentors, 14' x 24', 25 psi/vac., coils, 200 HP agit. (4)
5,000 gal. 304SS, atm. int., 75 psi jkt., agit.
4,100 gal. 304SS kettle, 15 psi jkt., 5 HP agit.
3,500 gal. 316SS kettle, 20 psi jkt., 7½ HP agit. (2)
2,500 gal. 304SS reactor, 75 psi/FV int., 180 psi jkt.
1,500 gal. 304SS kettles, jktd., 5 HP agit. (3)
1,500 gal. Pfaudler 316LSS reactor, FV/180 psi, 5 HP Agit. (2)
1,150 gal. 304SS reactor, 15 psi int., 25 psi jkt., 5 HP agit.
900 gal. 304SS reactor, 75 psi/FV int., 150 psi jkt., agit.
600 gal. 304SS reactor, 300 psi int., 75 psi jkt., coils (3)
500 gal. 304SS reactor, 150 psi int., 150 psi jkt., 5 HP agit.
300 gal. 316SS reactor, 75 psi/FV int., 60 psi jkt.
(50)... 316SS and 304SS reactors and kettles from 5 gallon to 400 gallon...call for list.

BIG PFAUDLER 316SS REACTORS

(5) 15,000 gal. Pfaudler, 316SS, 12'6" x 19', 100 psi, 200 psi jkt. Agit.
(4) 10,000 gal. Pfaudler, 316SS, 11'6" x 12'4", 100 psi, 100 psi jkt. Agit.

REACTORS-GLASS

2 gal. Pfaudler, 750 psi/FV, 700 psi jkt.
20 gal. Pfaudler, 35 psi, 100 psi jkt., agit. (2)
30 gal. Pfaudler, jktd.
50 gal. Pfaudler, 25 psi, 100 psi jkt.
50 gal. Pfaudler, 100 psi/vac., 85 psi jkt., agit., 1975
100 gal. Pfaudler, 25 psi, 90 psi jkt., agit.
150 gal. Pfaudler, 25 psi/vac., 90 psi jkt., agit.
300 gal. Glascote, 25 psi/vac., 90 psi jkt.
500 gal. Pfaudler, 100 psi/vac., 90 psi jkt., vari-drive agit.
500 gal. DeDietrich, 65 psi/vac., 105 psi jkt., 5 HP agit.
750 gal. Pfaudler, 25 psi, 65 psi jkt., 5 TW agit.
1,000 gal. Pfaudler, 100 psi, 90 psi jkt.
1,000 gal. Pfaudler, 75 psi/vac., 90 psi jkt., 10 HP agit.
1,500 gal. DeDietrich, 100 psi/vac., 90 psi jkt., 1981,
1,500 gal. Pfaudler, 100 psi/vac., 90 psi jkt., 25 HP agit.
2,000 gal. Pfaudler, 100 psi/vac., 90 psi jkt., 15 HP agit.
2,500 gal. Pfaudler, 150 psi, 90 psi jkt., #TW8 agit.

NEW LIQUIDATION! CHEMICAL/POLYMER PLANT....ILLINOIS ..BUY BEFORE REMOVAL AND SAVE!!

Bird 32"x 50", centrifuges, 316SS, contour (2)
Welex 8" Extruder, 700 HP, 30:1 L/D (5)
Welex 6" Extruder, 400 HP, 30:1 L/D (2)
Conair 24" pelletizer, 40 HP (2)
Renneberg 5'x 25' 304 SS rot. hot air dryers, 10 HP, (3)
Sweco & Kason 60" screens, SS (2)
K-Tron 7000#/hr. twin screw volumetric feeder, SS, (5)
Pfaudler 1,500 gal. 316L SS reactor, FV/-180 psi' 5 HP agit. (2)
Pfaudler 10,000 gal. 316L SS reactor, 150 psi/FV int., 180 psi jkt., hyd agit (4)
Worth. Plant air comp., 323 CFM @ 125 psi, 75 HP, Model #4-BB-2 (2)
17,000 gal. & 12,000 gal. 316 SS Tanks (3)

PHONE (609) 267-1600

DRYERS

Blaw Knox 6'4"x 40' SS vac. dryer, 600 cu. ft.
Blaw Knox 36"x 20' vac. dryer 316L SS, 72 cu. ft.
Blaw Knox 66"x 36' vac. dryer, nickel
Mathis 24"x48" flaker, chrome plated
Sandvik 48"x24' SS belt flaker, UNUSED
Sargent 60" x 45' SS conveyor dryer
Blaw Knox 32" x 90" dbl. drum
Aeromatic #ST-5 fluid bed dryer, 5/10 KG
Witte 36" x 10' fluid bed, SS, sanit.-cooler
Renneberg 36" x 20" rotary dryer, 316 SS
96" x 50' Louisville SS rotary dryer
10' x 100' GATX rot. steam tube dryers, 140 psi (4)
Wyssmont #VTL-24 Turbo-tray dryer, 304SS
P-K 5 cu. ft. vac. dryer, 304SS
P-K 20 cu. ft. vac. dryer, 304L SS (2)
Abbe 30 cu. ft. 304SS vac. dryer
Devine 110 cu. ft. 304 SS vac. dryer
Pfaudler 165 cu. ft. glass-steel vac. dryers (2)
Abbe 325 cu. ft. 316SS vac. dryer
Devine 370 cu. ft. 316SS vac. dryer
Devine 584 sq. ft. vac. shelf dryer
Niro 30" SS spray dryer
Bowen 72" spray dryer, SS
Bowen 96" spray dryer, SS

FILTERS-VACUUM

36" x 1' Dorr-Oliver, fiber glass 9 sq. ft.
36" x 1' Ametek, 316 SS, 9 sq. ft.
40" x 3' Bird-Young, SS, 48 sq. ft.
4' x 16' Elmco, 316SS, 64 sq. ft., horiz.
6' x 3' Ametek, SS, 55 sq. ft.
6' x 4' Elmco, "Elmcomet" polypropylene, UNUSED
8' x 8' Elmco, SS, 200 sq. ft., precoat
8' x 10' Dorr-Oliver, 250 sq. ft., 316SS, precoat
8' x 12' Elmco, 316SS, precoat, 300 sq. ft., (3)
8' x 14' Dorr-Oliver, 316SS, precoat, 350 sq. ft. (2)
10' x 10' Elmco, 316SS, precoat, 314 sq. ft.
11'6"x 16' Elmco, SS contacts
12' x 14' Komline, 304SS, 525 sq. ft., flexibelt disch. (2)

FILTERS-PRESSURE

54 sq. ft. Funda, SS, jktd.
65 sq. ft. Artisan "Dynamic" filter/washer, SS (2)
140 sq. ft. Niagara # 36-140 316 SS (2)
300 sq. ft. U.S. Autojet, 316SS, Sanitary (2)
600 sq. ft. U.S. Autojet, 316SS, sanit.
1000 sq. ft. U.S. Autojet #1000, 304SS
36" Shriver filter press, 546 sq. ft., hydraulic
42" Shriver filter press, 777 sq. ft., hydraulic
48" Shriver ALP recessed filter press, SS, 276 sq. ft.
48" Poly Filter Co. polypropylene filter press, 2094 sq. ft., 87 cu. ft. cake, 1983

PULVERIZERS

Mikro #4TH pulv., 125 HP, UNUSED (15)
Mikro #5MA atomizer, 5 HP
Mikro #6MA atomizer, SS
Pallman #REF8 pulv., 100 HP
Pallman #PP6 pulv., 50/75 HP
Abbe porcelain pebble mills... 36"x42", 36"x48", 42"x60", 48"x60", 60"x48" (7)
Raymond #6058 Hi-side roller mills, dbl. whizzer (2)
Raymond #73612 Hi-side roller mill, dbl. whizzer

NEW LIQUIDATION... CHEMICAL PLANT...GARFIELD, N.J.

(4) 316SS packed columns; 18" x 15'; 20" x 12'; 36" x 23' ; 36" x 40'
(1) 36" x 45' Glitch 316L SS column, 24 trays
(1) 48" dia. x 60' high SS tray column
(1) 60" x 60' Glitch 304L SS column, 60 trays, FV/75 psi
(1) 72" x 39' high SS column, 11 tray
(1) 76" dia. x 43' high Nooter SS column, jacketed, 25 psi/FV 150 psi jkt., 20 trays
(5) Niagara Aero heat exchangers, SS contacts
(21) Shell and tube heat exchangers, 316 SS and 304 SS: 12, 41, 92, 213, 297, 300, 320, 393, 400 (2) 431, 460, 522, 524, 527, (4) 600, 1050, 1300 sq.ft.
(2) Niagara #70-26 leaf filters, SS, 69 sq.ft.
(1) Niagara #110 leaf filter, 75 sq.ft., SS
(1) Mikro pulverizer #2TH, SS
(3) Patterson 200 gal. SS Sigma blade mixers, jktd., vac. cover, bottom disch., 20 HP
(1) Porter 62 cu.ft. 304 SS dbl. cone blender
(1) 8000 gal. 316L SS tank, 9' x 18', horiz., coils
(1) 6000 gal. 316L SS vert. tank, 7' x 21', 50 psi WP, coils
(2) 4500 gal. 316 SS tanks, 7'6" x 13', agit.
(1) 1800 gal. 316L SS tank/still, 6' x 8', w/coils
(1) 1500 gal. 316L SS tank, 5'8" x 8', horiz., w/coils
(8) 316 SS and 304 SS tanks: 1200, 1100, 500 (2), 250, 200, 100 gal.
(6) 3000 gal. vert. steel tanks, 8' x 9'
(1) Industrial filter dual unit dionization system, #3653PSA, Type 263, W/(2) 316L SS columns, 316 SS exchanger and tank, controls, etc... built 1979.
ALSO – SS pumps; (9) rubber-lined tanks on scales to 7500 gal; Rotoclone SS collector; blower; etc.

Over (50) Bird & Sharples decanters

CENTRIFUGES

Sharples P-5400 D-Canter, 316SS, Carbide tiles, late (2)
Sharples P-3400 D-canter, 316SS, tiles (2)
Sharples P-5000 D-canter, 316SS
Sharples P-660 D-canter, 316SS, back drive
Bird 12" x 30", 316SS, Decanter, 20 HP
Bird 18" x 28", 316SS, Decanter (3)
Bird 18" x 42" Decanter, steel, 10/30
Bird 24" x 38" Decanter, 304SS, contour-10
Bird 24" x 38" Decanter, 316SS, contour (3)
Bird 24" x 60" Decanter, steel
Bird 24" x 86" Decanter, SS, 125 HP
Bird 24"x 96" decanter, 304SS, carbide tiles, 1981, UNUSED (3)
Bird 32" x 50" Decanter, Monel, contour (2)
Bird 32" x 50" Decanter, 304SS, contour
DeLaval NX214-31B Decanter, 304SS, 20 HP (2)
Sharples AS16V "Super," SS (5)
Sharples AS26V "Super," SS
DeLaval BRPX-213-30, 316SS separator/desludgers (3)
Westfalia SAMN15037, Desludger/Separator, 316SS
Westfalia SA14-35-076 3-way separator, 316SS
Krupp 10" pusher, 316SS, 15 HP
Baker-Perkins 19" pusher, 304SS, 40 HP
Sharples 48" T-1600 auto-basket, 100 HP
Tolhurst 48" Batchmaster, rubber lined, 30 HP
Sharples 48" Tornado-Matic, SS, 25 HP
Delaval 48" Mark 111, 316SS hyd.
CENTRIFUGE PARTS... Sharples, Bird, DeLaval, etc.

EVAPORATORS

2.4 sq. ft. Rodney-Hunt SS, 3 HP
21 sq. ft. Rodney-Hunt Turbafilm #4, SS
87 sq. ft. Rodney-Hunt, 304 SS, Turbafilm
100 sq. ft. Pfaudler, 316L SS, wiped film
600 sq. ft. Goslin-Birmingham dbl. effect, SS
854 sq. ft. Buflovak dbl. effect, SS
1688 sq. ft. Roger dbl. effect, SS
Swenson 316SS cntinuous crystallizer, 9" x 14'

TANKS & VESSELS

30,000 gal., 304SS, 14' x 24', coils, 200 HP agit. (4)
20,000 gal., 304SS, 12' x 24' (2)
17,000 gal., 304SS, 11' x 24' (3
17,000 gal., 316LSS, 14'x 13', Agit. (2)
12,000 gal., 316LSS, 12'x 14', Agit. (5)
10,500 gal., 316L SS, 8' x 28'
10,400 gal., 304SS, 10'6" x 16', agit.
8,000 gal., 304SS, 10'6" x 12'
5,000 gal., 304SS, 9'x9', 25 HP agit.
3,500 gal., 304SS, 8'x9'
3,000 gal., 304SS, 7'x 10', agit.

MIXERS, BLENDERS

3.5 cu. ft. Henschel #FM15D, 17/20 KW
11.5 cu. ft. Henschel #115JSS, 92/46 HP
13.7 cu. ft. Lodige #W600/K1200, mix/cool comb.
20 cu. ft. P-K twin shell SS
33 cu. ft. Abbe high intensity, SS, 40/20 HP
35 cu. ft. Day Nauta, #NBX350, SS
52 cu. ft. Nauta 304SS mixer (2)
60 cu. ft. Gemco ,TW SH, Sanit, SS
69 cu. ft. Patterson dbl. cone, SS
70 cu. ft. Day Nauta, #NB700, 10 HP
75 cu. ft. Day Nauta, SS, jktd.
75 cu. ft. Robinson SS ribbon blender, jktd.
98 cu. ft. Day Nauta, SS, 1981
110 cu. ft. J.H. Day, dbl. ribbon, 316SS
120 cu. ft. Cleveland ribbon blenders (5)
144 cu. ft. 304SS dbl. ribbon blender, 30 HP
169 cu. ft. Pfaudler, dbl. cone, glass steel jktd., vacuum
200 cu. ft. Young, ribbon, SS

(2) Sharples P3400 D-Canter, 316SS, Tiles back drive, little use since rebuilding!

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BALERS, Dispozapak #D600 balers, (2)
BAG PACKER, Howe-Richardson #G-S-17 semi-automatic bagging system SS contacts
BINS, 304L SS contacts, 1300 cu.ft./9720 gal.
CENTRIFUGE, Bird 24"x96", 304SS, Model 15 solid bowl continuous, 10 deg. contour bowl, Tungsten carbide tiles on conveyor, 150 HP
CHLORINATION SYSTEM, Wallace & Tiernan
COLUMN, 46" dia. x 15'9", 304SS
CYCLONE, DuCon Model 700/175 304SS high efficiency cyclones, size 210, Type VM (8)
DRYERS, Nooter 4' x 14' rotary vac. dryer, 316L SS shell and jacket, Incoloy ribbon agit., ASME 100 psi/FV int. & jacket. 100 HP
FEEDERS, Acrison gravimetric weigh feeders, Model 403-15,000-3,000-BDF-4, 304SS
FURNACE, C-E Air Co. "Cor-Pak" thermo oxydizers, direct gas fired
MIXER, Air mix blender system, Koppers-Sprout Waldron #36-50, 500 cu.ft., 304SS
MIXERS, Webb, 59" W x 15'L twin shaft paddle mixers or pug mills, 304SS contacts, (2)
PACKAGING SYSTEM, design to fill bags, palletize, shrink wrap, etc. automated system.
PULVERIZERS, Mikro #4TH pulverizers, 125 HP drive, (15)

[illegible] ... BUILDING ... N.J. [illegible]

(2) Munson 300 cu.ft. blenders, 104" dia., #TS-300GB, pkgd.
(1) Munson 110 cu.ft. blender, 90" dia., #700/110, pkgd.
(2) Munson 90 cu.ft. blenders, 80" dia., #7TS90, pkgd.
(2) 400 cu.ft. Gruendler ribbon blenders
(2) 215 cu.ft. Cleveland ribbon blenders
(2) Eirich 10' dia. intensive mix mullers, motorized pan and mullers
(2) Komline dbl. cone blenders; 320 cu.ft. (10' dia.), 69 cu.ft. (6' dia.)
(3) Gruendler hammermills, 150 HP, 1980
(2) Gruendler hammermills, 100 HP, 60 HP
(1) Mikro #8D atomizer pulverizer, 30 HP
(1) Mikro #4TH pulverizer, 50 HP
(2) Saw tooth brakers/crushers
(2) St. Regis baggers
(1) "Push-Pull" railcar unloading system
(25) Flexkleen, Dustex, etc., bag type dust collectors
(2) Box sifters
(1) Handling system w/(2) 2000 lbs. elevators, 80' powered roller conveyor, etc.
ALSO...laboratory with lab apparatus, tables, equipment, etc.; motor control center units; Gardner-Denver air compressor; etc., etc.

Poly Filter Co. 48" polypropylene filter press, (100) chambers, 2094 sq. ft., 87 cu. ft cake, hydraulic...1983, CALL!

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CENTRIFUGAL COMPRESSORS

By Make, Model, and ACFM

Model	ACFM	Model	ACFM	Model	ACFM
Allis Chalmers		Clark (Cont.'d)		Elliott	
VT204	1315	3M5	5350	46M8-6	17300
DHM3	1890	3M3-2	5800	42H2	18453
V-403	5900	2M6	5840	Ingersoll Rand	
V-402	9110	24X24	6750	MMGB-1220	170
DH4M	10400	3M-5	7608	MMGB1321	232
Brown Boveri		553B7	8361	MGA733	1775
VWO 609	20900	3H4	10620	CVS-12	2015
VW0609	21000	3M-6	10700	TYPE L AXI	2472
V907BD	34000	3H4	11950	CDP-416	2540
Carrier		3H4	11950	CDP-416	2540
18VT352	3350	4H4	19365	MGG633	2550
18P351	4180	4M3	20200	MTG633	2810
18W453	4740	M4	21600	900X20	2960
18W452	6270	4M6	21600	TYPE L-AXI	3510
18V470	7200	5H4	23850	CII40M2	4220
18PM451L	10700	4M	25600	MGG633	4730
18PM451Y	12000	6H4	39100	CVS14	5800
18WV502	17790	B5H	52180	MGGB	7270
18S601	31900	6M3	56500	MGA642	7500
Cooper Bessemer		6M3	98300	CVS-14	8750
RB9-8B	277	DeLaval		CVS-14	9360
RB9-8B	445	2C	3260	MGA-177	36150
RB9B	1048	6C148	5980	MMA-3100	54200
RB6B	3446	Demag		MMA-4100	57750
RC8B	3525	VK63	45100	Joy	
RF2B24	13100	Elliott		TA25V	2440
RE7S	18773	29M-9	3055	TA-30	3280
RE8-7S	30000	29MS-9	3055	TA-30	3280
Clark		18HV470	3360	GMSG12	10868
1M8	550	29MS9-8	4390	Rotoflow	
1M5	1110	29MS9-81	4390	60K	6755
1M9-8	1477	29MS9-8	4390	Worthington	
1M9-8	1477	29M7	4750	GUR-3S6	3980
2B	1611	29MS8-7	4750	GUR-4K2	7050
2M9	1966	40P	6610	VC706	11300
2M-7	2223	29M3	7093	DEMAG	24000
3M6	2403	38M8-4I	7450	York	
2M7	2490	38M2	9481	23268A	2830
1M8	2575	38M3-2	10700	CALL JACK BURCH	
2BF8	3221	18P452	14000	713/471-4900	

UNUSED PATTERSON-KELLEY twin shell blender, 1 cu.ft., 316 S/S, liquid-solids bar, UNUSED.

PATTERSON-KELLEY "V", 1 cu. ft., S/S, 550 lbs.
BUFFALO 6"x7½" dble. drum dryer, chrome plated.
THROPP 6"x12" two roll mill, 7½ HP.
KENT 4"X8" three roll mill, ¾ HP XP.
HOCKMEYER 10 HP disperser, X P, VS.
STANDARD METALS model JI 600 bottle cleaner.
KALIX model KX60 tube filler, S/S, agit. hopper.
CHERRY BURRELL S/S oscillating granulator.
CHROMALOX 100KW water-glycol heat transfer sys.

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BLENDER-11 cu. ft. Littleford Model M-5-G, S.S.
BLENDER-200 cu. ft. Patterson-Kelley Twin Shell, C/S
CENTRIFUGE-48"x30" Western States, Perf. S.S316
CENTRIFUGE-AS-16NF Sharples, 3HP, 15,000 RPM
CHILLER-150 ton Carrier, 19C6D7-5-3 Hermetic
COMPRESSOR-400 CFM @ 100 PSI Fuller C-80-80H, 100HP
COMPRESSOR-800 CFM @ 125 PSI Clark ICA-6, 150HP
CONDENSOR-165 sq. ft. Karbate, 75/75 PSI
CONDENSOR-278 sq. ft. 304 S.S. 175/175 PSI UNUSED (2)
CONDENSOR-383 sq. ft. 304 S.S. 150/150 PSI UNUSED (4)
CONDENSOR-1636 sq. ft. 316 S.S. 150/150 PSI (3)
DRYER-5 cu. ft. Patterson-Kelley Conical S.S.
DRYER-20 cu. ft. Economy Conical C/S
EVAPORATOR-1 sq. ft. Rodney Hunt 316 S.S. w/Condenser
EVAPORATOR-6.54 sq. ft. Rodney Hunt, 316 SS System
FILTER-5'6"x8' Bird-Young 304ELC, Rot Vac
FILTER-7'-33" Shriver & Sperry units
KETTLE-50 gal. Mueller S.S. with Double Motion Agit.
MILLS-#1,2TH,4TH Mikro Pulverizers
PROCESSOR-5-10 cu. ft. P.K. V-Type S.S. Jkt. Vac. 550 # (4)
REACTOR-750 gal. glass lined Pfaudler 100 FV/90 (2)
REACTOR-2000 gal. C/S & S.S. 15/15 PSI (2)
TANK-5000 gal. Vertical 304 S.S. 25 PSI UNUSED (2)
TANK-8000 gal. Horizontal S.S. on saddles
VAC. PUMP-150 CFM @ 26" Nash H-6, 25 HP rebuilt
VAC. PUMP-1550 CFM @ 24" Nash H-10, 125 HP

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Richmond 3000 Gal. S/S Reactor, 80/40 PSI, 20 HP.
(3) Pfaudler 30 Gal. S/S Reactors, 80/90 PSI, 1½ HP XP V/S.
Hercules 500 Sq. Ft. "Roto-Jet" Filter, 316 S/S, 60 PSI.
Jacobson 6DSF-11 "Universal" Hammer Mill, 100 HP.
(2) Entoleter Type EIM "Centrimil", 48" Dia., 316 S/S, 150 HP.
Simpson "Rotex" model 551 Sifter, 316 S/S, single deck.
Fitzmill, 316 S/S, No. DKAS012, 20 HP.
Holo-Flite Screw Dryer, 16" Dia. x 20' L., C/S, Jkt. trough.
Chromalox 200 KW Hot Oil Unit.
Chromalox 20 KW Hot Oil Unit (ALL XP)
Sterling 12 KW Hot Oil Unit.
Hockmeyer 50/25 HP High Speed Disperser S/S, XP #2 Spd.
(3) Sussmeyer model 5RS Sand Mills, 30 HP XP.
Morehouse-Cowles 12-30 & 10-25 Sand Mills, 40 & 25 HP XP.
Patterson Steel Ball Mills, 6'x8' & 6'x5' and other sizes.
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Patterson & Abbe Ceramic-Lined Pebble Mills from 16"x21"+up.
Reliable 6"x12" Two Roll Mill, 5 HP.
110 Cu. Ft. C/S heavy-duty ribbon blender, jkt. 20 HP.
(2) Letsch S/S sanitary ribbon blenders, 12.25 Cu. Ft., 2 HP.
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Votator (2) 4"x48" L. Tubes, 316 S/S, 15 HP.
Dorr-Oliver "Web-Trol" 6'x8' Rot. Vac. Filter, 316 S/S.
Crandall 5-Gal. subsurface weigh-type filler, S/S, model F-2.
Turba-Film 1.13 Sq. Ft. Lab evaporator, 316 S/S, 1 HP complete.
Nichols/Niro 10 ft. Dia. Spray Dryer, 120 #/Hr., all S/S.
Baker-Perkins & Readco dbl. arm mixers; 2½ to 350 gal., C/S, S/S
Heat Exchanger 489 sq. ft., 304 S/S, 75/15 psi.
(2) Rietz prebreaker, UNUSED Model PB-10, C/S, 20 HP
(4) Rietz extructor, UNUSED Model RE-12, C/S, 10 HP

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-Readco Sigma Blade Mixer 10 gal. SS Dual Level (Like New)
-150 cu. ft. Dbl. Cone Blender
-Ross 10 gal. Planetary Mixer SS
-Readco 3 gal. SS Sigma mixer, jktd.
-Patterson Kelly 1500 cu. ft. CS blender 75 HP
-Paul O. Abbe 90 cu.ft. SS/sanit. jktd. vac. blender 50HP
-Nauta Mixer 70 cu.ft. SS 10 HP (2)
-Devine 100 cu.ft. Dble Cone Blender, C/S
-Baker Perkins 150 gal. C/S jktd vac. flusher
-Strong-Scott 200 cu.ft. CS ribbon blender
-J.H. Day 40 cu.ft. Ribbon Blender, S/S (3)
-Patterson Kelley 40 cu. ft. Twin Shell Blenders S/S
-Patterson Kelley 1 cu. ft. Twin Shell Blender S/S 500# dens.
-J.H. Day 23 cu. ft. S/S Ribbon Blender

FILTERS

Star SS Filter Presses 18" (5)
-Elmco 4'x12' Vacuum Belt Filter 316 S/S
-Sparkler Filter Mdl #18-D-4 SS jkt./ 33D12/ SS 8-6
-U.S. Autojet filter SS 50 sq. ft.
-Hercules Filter 500 sq.ft. 316 SS
-Bird (Plannevis) Filter SS, 12" wide x 17' long
-Sperry 42" Plypro Filter Press 48 Chambers
-Shriver 36" ALP 316-SS, 41,48 Chambers (2)
-Evirex SS Rotary filters 6 x 8
-760 sq.ft. U.S. Autojet, Mdl #760, 316 SS
-Industrial Filter 100 sq.ft. Type 122 ID 31 Model OMD
-Enzinger leaf filter SS 360 sq.ft.

DRYERS

-Strong Scott Rotary Vac. Dryer SS 3'x12' Solidaire
-Aeromatic Fluid Bed Dryer Lab. Model #ST-15
-Abbe 20 cu. ft. S/S conical vacuum dryer
-Jeffrey Fluid Bed Dryers 2'x20' SS - (2) Available
-Pfaudler Conical vac. dryer G/L 72 cu. ft. complete system
-Patterson-Kelly 3 cu.ft. twin shell vac dryer SS
-Stokes vac shelf dryers 48.9 sq.ft. (7)
-Standard Hersey 4'x30' Rotary dryer SS
-Bowen Spray Dryers 7½' & 5' SS
-Aeromatic fluid bed S.S. dryer Model 100ST 20
-Patterson-Kelley 5 cu.ft. SS Conical Vac Dryer
-Stokes 5'x30' Rotary Vac Dryer, Jktd, SS
-Gemco dbl. cone vac dryer 10 cu. ft. SS
-Patterson Kelley Twin Shell vac; dryer 75 cu. ft.

NEW ARRIVALS

-Patterson Kelley 4 qt. S/S Twin Shell Blender Liquid/Solid Bar
-Myers 10 H.P. vari speed dissolver
-Chemetron Heat Exchanger Scrape Wall 9 sq. ft.
-Tolhurst Centrifuge 26" 316 SS perf. basket
-Sharples Centrifuge 12" SS solid bowl w/skimmer (2)
-Cowles dissolver 50 HP, 30 HP, 20 HP
-Schold Shot Mill 304 SS jkt'd. 100 HP (2)
-Chromalox Hot Oil Heaters 20 & 40 KW & 80 K.W. complete system UNUSED
-Patterson Kelly 30 cu. ft. twin shell blender jktd SS w/int. bar
-Patterson 3'x4' jkt. Ball-Mill
-Pk 1 cu. ft. Twin Shell SS 500 lb. Dens.
-Mateer Filler Model No. 33A Auger Type, SS/sanit
-Patterson Kelley Twin Shell 1 cu. ft. vac. processor SS
-Patterson Kelly 16 qt. Twin Shell Blender SS Liquid-Solid Bar
-Alpine Sieve Model # A-32-100 LS
-300 gal. SS Dispersion Tank (60)
-Reitz disintegrator SS 5 H.P.
-Autoclave 200 gal. SS 115/350
-Funda Filter 4' dia., SS, jktd. w/20 HP Drive
-SS Kettles 400, 300, 200, 150 (25)
-Artisan 1 sq. ft wiped film evaporator SS complete system
-Ross 15 gal. SS jktd. mixtruder 7½ HP Mdl. AMK 15
-Micro Atomizer SS 5HP XP Mdl. #5MA
-7500 gal. Fiber Glass Tank (8)
-Misc. Lab Colloid Mills
-Ross 2 gal Planetary Mixer Model # 130 ELS/S jkt bowl

CENTRIFUGES

-Tolhurst Centrifuge 26" S/S perf. basket
-Bird Centrifuge CS 40" x 60" Solid Bowl w/drive
-Bird Centrifuge CS 18"x28" Contour Bowl (UNUSED)
-Bird 36"x50" 347SS Contour Bowl
-Sharples 12" SS Lab Model/Brighton Lab
-Sharples P-5000 decanter SS 100 HP
Sharples P-3000 Decanter 30 H.P.

GRINDERS & MILLS

-Ross 3-roll mill 4½ x 10" (2)
-Fitzmill Mdl. No. D-6/DSAO/12 30HP SS
-Simpson Mueller 6"x5" size 2 VD mixer 20 HP
Sweco Separator 48", 30", 24", 18" SS
-Greerco Colloid Mill, 3 HP & 5HP

REACTORS

-4000 gal. 316 SS reactor 90/500 psi half pipe jacket (4)
-Norwalk 3000 & 750 gal. SS reactor dimple jktd FV/50
-Pfaudler 9200 gal G/L Reactor 90/90 psi Unused
-Downington 1800 gal. Monel Clad reactor 55/70 psi
-13,500 gal. 304 Elc Dim., Jktd, Reactor, 30/100 psi
-Pfaudler 500 gal. G/L jktd. vac. reactor

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Resyn Corp. will buy your surplus chemicals, resins and resin raw materials — prime or off-specification, Resyn Corp. P.O. Box 63, 1540 W. Blancke St., Linden, NJ 07036. (201) 862-8787.

We Buy Surplus chemicals, colors, resins, solvents, plasticizers by-products, etc. Over 50 years of service to industry. Eastern Color & Chemical Co., Inc. 65 Roosevelt Ave., Dept. C.P.O. Box 1029, Valley Stream, N.Y. 11582. (516) 791-4445.

Your Surplus is our Inventory. We buy all chemicals, pigments, resins, solvents, plasticizers and pharmaceuticals. Prompt inspection and cash terms on each offering. Pyramid Chemical Sales Co., 1035 Virginia Drive, Fort Washington, PA 19034. (215) 542-9292.

EQUIPMENT OFFERED

Drying System — Complete Chemical. Unit Operation consisting of 2–42" x 120". Atmospheric Double Drum Dryers with chrome drums, all stainless steel accessories including S.S. hoods SS conveyors, and S.S. bucket elevators coupled to a 5' x 25' S.S. concurrent gas fired rotary dryer. All with required drives, motors, steam accessories and approved gas unit for rotary dryer. S.S. Cyclones S.S. scrubbers, etc., all available and in place. This drying system designed for continuous operation and thru put of 40,000 lbs. to 100,000 lbs. day dependent on product required. Will consider sale of part or whole. Write or call: Jarchem Industries, 40 Ball St., Newark, N.J. 07105. 201-344-0600. Attention: Bob or Jule.

Vibration System For Sale L.A.B. Servo Hydraulic System 36" Table, 200 lb. Payload, 3000 psi pump, Sweep Generator 0.2-500 HZ. Wright Chemical Corporation, P.O. Box 402, Riegelwood, N.C. 28456 (919) 655-2263.

FACILITIES OFFERED

For Sale Chemical Packaging Plant — Atlanta. Area filling qts, gallons, pails & drums. Flammable liquids. 11 tanks w/33,500 gal capacity. Present filing contracts will continue. Lease thru June 1991. Contact Jay Fox 312-750-6872.

For Sale Chemical Packaging Plant — Philadelphia. Filling 4 oz. thru 55 gal. Automatic rotary filling line & several semi-automatic lines. Flammable liquids. 37,000 sq. ft. 45,000 gal. storage capacity. Present filling contracts will continue. Lease thru Jan. 1992. Contact Jay Fox 312-750-6872.

Toll Blending — Major U.S. Chemical Specialties manufacturer in S.E. Pennsylvania looking for suitable products to toll blend and/or repackage. Adjacent to I-95. Rail siding. 7 loading docks, inside/outside tank farms and large inventory area. Equipment for dry or wet blending, including chemically reacted products. Liquid and paste reactors from 500 to 7,000-gal capacity; ribbon blenders from 1000 to 4000-lb sizes; jacketed Nauta-Day mixer with 2000-lb capacity. Packaging facilities include tank truck, wet or dry product bins, steel or fiber drums, 50-lb bags, 5-gal, 1-gal, 8-oz containers. For information write CMR 749.

POSITIONS OFFERED

Chemical Sales — Excellent opportunity for results-oriented salesperson, 2-3 years experience selling chemicals with some import chemical knowledge preferred. NJ based American subsidiary of multi-national company. Superior salary and benefits. Please respond to: CMR-748.

Food Additives/Pharmaceuticals/Fine Chemicals — Experienced salesperson with 8-10 years proven success in the Eastern U.S. market is required by International trading/distribution company. We offer great growth potential for motivated applicant. Please send resume only to: Mr. Lars Pettersen, Helm New York Chemical Corporation, 1110 Centennial Avenue, Piscataway, New Jersey 08854.

Sales Representative. Major Pharmaceutical Chemical Producer seeks a well organized, self starter with 3-5 years experience Chem. degree a plus. Offers attractive starting salary, company car and expenses, excellent benefits. Send resume and salary history to P.O. Box #CMR750.

SERVICES OFFERED

Custom Packaging — Bulk to drums, rail and truck facilities — storage and delivery of both bags and drums — call Jack Mair, Coyne Chemical, Croydon, (Philadelphia area) PA at 1-215-785-3000.

Custom solids packaging and distribution in the port of Mobile, Multi-wall bags, bulk bags, drums and bulk, Screening, repackaging and warehousing. Rail and truck facilities. Contact: Philip Hahn, SEAPAC, Bldg. 14A, Brookley Complex, Mobile, AL 36615, 205/433-3541.

Reconditioned Drums, cut packaging costs. High grade reconditioned steel drums to meet all DOT specs. 15 gallon-85 gallon. Linings our specialty. Truckload discounts. Used drums removed. Call Drum Service N.Y. 718/494-0255, outside N.Y. 1-800/628-6913.

Grace, Beatrice Eyed in Woburn

Environmental Protection Agency has identified as sources of well contamination in Woburn, Mass. three companies accused by residents of chemically contaminating wells and causing a rash of leukemia deaths.

EPA identified W.R. Grace, Beatrice Foods and Unifirst Corp. in a report reviewed by residents at a City Hall meeting last week. The report said the companies had contaminated Wells G and H, which have been closed since 1979 and are on the Federal Superfund cleanup list.

Two businesses that leaked gasoline into the well field — a truck terminal owned by Olympia Nominee Trust and a Weyerhaeuser paper warehouse — had not been identified previously, according to Barbara Newman, the EPA project officer overseeing the wells.

The findings came from an EPA remedial investigation, which involved three samplings last Winter from each of 90 test wells at the Woburn site. The next step in cleanup is preparation of a detailed study, not expected until next Fall.

GAF and Jacobs Increase Stakes

Borg-Warner Corporation is facing a possible takeover attempt by both GAF Corporation and the Minneapolis, Minn. investor Irwin Jacobs. Mr. Jacobs has said that he may seek a takeover, while GAF stated that its present intention is only to make the investment.

GAF, headquartered in Wayne, N.J., said that the company holds 4,239,000 shares of Borg-Warner and that through an agreement with Bear Stearns & Co., they have acquired an option to purchase 4,084,000 Borg-Warner shares. The shares and the option together account for 9.6 percent of Borg-Warner's outstanding common shares.

GAF said that it intends to purchase more than 10 percent but less than 25 percent of Borg-Warner's shares, and that it is considering a number of possibilities, "including the possibility of a business combination between GAF and that company." GAF adds, however, that management has not yet reached any decision with respect to Borg-Warner.

Mr. Jacobs said that he had raised his stake in Borg-Warner to 7.4 percent, or 6.46 million shares, from 6.1 percent. In his filing with the Securities & Exchange Commission, he let stand his previous statement that he might seek control of Borg-Warner.

ADVERTISERS' INDEX

CHEMICAL PROFILE

TKPP

November 24, 1986

SUPPLY

PRODUCER	CAPACITY*
Albright & Wilson, Fernald, Ohio	9,000
FMC, Carteret, N.J.	20,000
FMC, Newark, Calif.	5,000
Monsanto, Augusta, Ga.	10,000
Occidental, Jeffersonville, Ind.	10,000
Total	54,000

*Tons per year of tetrapotassium pyrophosphate. Capacities are flexible as varying amounts of other phosphates are manufactured at the same facilities. Albright & Wilson, a Tenneco subsidiary, acquired the Fernald plant from Mobil in May, 1985. The plant makes only liquid product. Monsanto phased out its 12,000-ton-per-year facility in Kearney, N.J., in the second quarter of this year as it started up the new facility at Augusta. Profile last published 4/1/84; this revision, 11/24/86.

DEMAND

1985: 19,500 tons; 1986: 17,000 tons; 1990: 18,000 tons.

GROWTH

Historical (1976-1985): Minus 7.7 percent per year; future: 0 to 2 percent per year.

PRICE

Historical (1952-1986): High, $64 per cwt, bags, anhyd., works, E., freight equald.; low, $13 per cwt., same basis. Current: $64 per cwt., same basis; $58 to $63.75 per cwt, bulk solution, same basis.

USES

Liquid cleaners (consumer and industrial hard surface), 60 percent; water and metal treatment, 25 percent; miscellaneous (including styrene-butadiene-rubber, drilling muds, liquid dishwasher detergents) 12 percent; exports, 3 percent.

STRENGTH

TKPP has new application or growth potential in such diverse areas as specialty fertilizers, liquid dishwasher detergents, oil drilling muds and liquid bathroom cleaners.

WEAKNESS

Early this year Procter & Gamble reformulated its "Top Job" liquid cleaner away from TKPP, an annual demand loss of 2,000 to 3,000 tons. Production has been cut in half since 1979 due to similar reformulations.

OUTLOOK

Its felt that erosion in the liquid cleaner market has finally ended. TKPP demand should pick up somewhat due to moderate growth in new areas. A rebound in the oil business has the potential to give TKPP a real boost via drilling mud applications.

Monsanto Man

Continued from Page 5

stronger this year than it is reasonable to expect it will be in 1987.

Most important to the chemical industry is consumer spending on goods and on that basis, adjusted for inflation, Mr. Fillipello says demand has been up by about 4.5 percent this year, "extremely strong for the fourth year of an economic expansion."

Mr. Fillipello admits there are some concerns about the strength of consumer demand next year and he does not treat them lightly. There is concern that the consumer has overspent, continues to have a very low savings rate, is overloaded with debt and has responded to incentives from the automotive industry with pre-tax reform buying that will undoubtedly pull some sales out of 1987.

However, the Monsanto executive points out that there is no reason to be pessimistic about the growth of income in the US. "Historically, the consumer does not stop spending until after his pre-tax income stops growing," he asserts.

In regard to consumer debt, Mr. Fillipello says the debt overhang is not nearly as heavy as it might appear on the surface. The important thing, he says, is not the amount of debt, but the amount of debt service the consumer has to pay.

Because of lengthening maturities on consumer loans and lower interest rates, the amount of debt service has actually been on a downturn in the past four years, Mr. Fillipello says. Overall, it's expected that consumer spending on goods in real terms will increase by 2 to 2.5 percent next year as compared to the 4.5 percent projected for this year.

TAX REFORM IMPACT

As to tax reform, it is generally conceded that capital-intensive companies will be hurt, but Mr. Fillipello is not convinced the impact will be as severe in the chemical industry as had initially been expected.

It's felt the loss of the investment tax credit is important for the near term, but as the tax loss is phased in and companies are able to increase profitability to soften the blow, Mr. Fillipello believes that within three to four years "most of the industry can be on a reasonably neutral basis again and those that are less capital-intensive with less international orientation may actually come out slightly ahead."

International competition, changing economics of the petrochemical industry and the increased "discipline of Wall Street" are other major factors in the new chemical industry, he says.

"The fact that there are corporate raiders out there has, in many cases, enhanced and accelerated restructuring and cost reduction," he adds.

One of the most encouraging aspects in "this very good financial year," he says, is the fact that chemical companies are not sitting back and becoming complacent. Instead, they are considering longer-term concepts such as return on capital and equity.

On this basis, Mr. Fillipello says the US industry does not have a long way to go. Restructuring is not yet finished and cost reduction programs are still underway, but the industry is incrementally becoming less capital intensive, more technology intensive and in a better position to be competitive in the world economy in the coming years.

"The growth in profitability in the industry is not coming from conducting business as usual, but is coming rather from pursuing technologies of the future, becoming more efficient and concentrating on individual comparative advantages," Mr. Fillipello concludes.

Edward M. Giles, president and director of F. Eberstadt & Co., told the CMA members 1986 has seen a further buildup in discretionary cash flow by chemical companies as the industry is hanging on to a good piece of the benefits provided by lower world oil prices and a drop in the dollar. However, this is not viewed as a windfall, but as a deserved result of some of the restructuring changes made by the industry.

A considerable sum of this discretionary income has been allocated to repurchase of shares, Mr. Giles says. Fifteen major companies repurchased about $1.5 billion in stock in 1983 and 1984 and an additional $5.6 billion in 1985 and 1986 to date, including nearly $3.5 billion by Union Carbide Corporation. By contrast the net worth of these companies now approximates $36 billion.

NEW GROWTH AREAS

Also, there has been an intensified interest in seeking out new areas of future growth reflected in the move to research and development and acquisition activities.

While Mr. Giles sees these as the two major trends in the industry, he says a development of equal importance has been the steady allocation of capital to modernization and rationalization of the major commodity plants.

"We're under the impression, for example, that the chloralkali industry, despite all its pressures, has more modern plants now than it did ten years ago," he says. "We don't think you can make a case that the commodity plant has been left to rust as the industry strides off into new areas and the example of the steel industry does not apply," Mr. Giles adds.

Excluding Union Carbide's dramatic change in capitalization, industry net worth in mid-1986 was about the same as 1981 with debt up 2.5 billion, reflecting the burden of share repurchase and writeoffs. However, profits in 1986 will be nearly double the 1985 levels and up about 40 percent from the pre-writeoff 1985 levels, Mr. Giles says, compared to the 15 percent gain for the S&P 400.

At the end of 1986, Mr. Giles feels the major companies, again excluding Carbide, should have debt to total capitalization approximating 30 percent and accrued interest coverage which should produce a return on equity of about 13 percent.

Mr. Giles agrees with Mr. Fillipello that 1987 should see modest GNP growth but with better growth in industrial production than in 1986. Chemical industry profits should rise about 20 percent next year.

MEETINGS CALENDAR

November 24, 1986

THIS WEEK

LATIN AMERICAN PETROCHEMICAL ASSOCIATION, sixth annual meeting. Rio Palace Hotel, Rio de Janeiro, Brazil, November 23-25.

DECEMBER

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, 73rd annual meeting, Marriott's Harbor Beach Resort, Fort Lauderdale, Fla., December 7-11.

NATIONAL ASSOCIATION OF CHEMICAL DISTRIBUTORS, 15th annual meeting, Ritz-Carlton-Naples Hotel, Naples, Fla., December 2-6.

SALES ASSOCIATION OF THE CHEMICAL INDUSTRY, annual Christmas party. New York Hilton Hotel, New York, December 16; education committee, seminar, "The Psychology of Selling." Treadway Inn, Saddle Brook, N.J., December 18.

LATER ON

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS, center for chemical process safety, international conference on chemical safety issues, Omni Shoreham Hotel, Washington, D.C., February 3-5.

ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, 12th annual Spring workshop and exhibition, Skyline Ottawa Hotel, Ottawa, Ontario, Canada, April 27-30.

CHEMICAL GROUP OF NATIONAL ASSOCIATION OF PURCHASING MANAGERS, mid-Winter conference, "Purchasing — Opportunity in a Changing World," Baton Rouge Hilton Hotel, Baton Rouge, La., February 18-20.

CHEMICAL MARKETING RESEARCH ASSOCIATION, Houston Meeting: "The US Chemical Industry-Responding to Change." Westin Galleria Hotel, Houston, Tex., February 4-5, 1987.

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, 73rd mid-year meeting, Chicago Mariott Hotel, Chicago, Ill., April 26-29.

CHINACHEM '87, international exhibition on chemical and petrochemical industries, China International Exhibition Center, Beijing, China, April 3-9.

CHLORINE INSTITUTE, Winter meeting, Mayflower Hotel, Washington, D.C., March 15-19.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION, 61st annual dinner, Waldorf-Astoria Hotel, New York, March 19; Spring luncheon, Sheraton Centre Hotel, New York, N.Y., June 11.

FERTILIZER INSTITUTE, 1987 annual meeting, Marriott Orlando World Center, Orlando, Fla., February 1-3.

FIRE RETARDANT CHEMICALS ASSOCIATION, international conference on flame retardancy and fire safety, Sheraton New Orleans Hotel, New Orleans, La., March 22-25.

INSTITUTE OF GAS TECHNOLOGY, 11th annual symposium on energy from biomass and wastes, Hotel Royal Plaza, Walt Disney World Village, Buena Vista, Fla., February 2-6.

INTER-SOCIETY COLOR COUNCIL, scientific conference, Williamsburg Lodge, Williamsburg, Va., February 8-11.

NATIONAL PETROLEUM REFINERS ASSOCIATION, 85th annual meeting, Convention Center, San Antonio, Tex., March 29-31; 12th international petrochemical conference, Convention Center, San Antonio, Tex., April 5-7.

POLYURETHANE MANUFACTURERS ASSOCIATION, Spring meeting, commercial development of new castable systems, Fairmont Hotel, Dallas, Tex., April 26-29.

SOAP AND DETERGENT ASSOCIATION, 60th Annual Meeting and Industry Convention, Boca Raton Hotel and Club, Boca Raton, Fla., January 29-February 1, 1987.

SOCIETY OF THE PLASTICS INDUSTRY, 42nd annual conference of the reinforced plastics and composites institute, Cincinnati Convention & Exhibition Center, Cincinnati, Ohio, February 2-6.

THE FERTILIZER INSTITUTE, 1987 Annual Meeting Marriott Orlando World Center, Orlando, Fla., February 1-3, 1987.

JOBS & PEOPLE ((( ))) JOBS & PEOPLE

Albert L. Ellender, who has been elected president of Cosan Chemical Corporation. Mr. Ellender joined Cosan in 1968 and most recently served as executive vice-president and chief operating officer.

Witco Appoints Two In Sonneborn Unit

Witco Corporation has appointed Anthony P. Banaszewski technical director at its Petrolia, Pa., plant and Robert N. Williams operations manager at its Gretna, La., plant. Both plants are part of Witco's Sonneborn Division.

Mr. Banaszewski has been with the Petrolia plant since 1976 as a chemist and laboratory superintendent.

Mr. Williams joined the Gretna plant in 1973 and has held a series of technical and production posts. Most recently he was superintendent for white oil and sulfonate production.

A.P. Banaszewski

R.N. Williams

Bill B. Daily, who has been appointed vice-president of customer satisfaction for Dow Chemical Company. He will head an as yet to be announced task force concerned with reviewing ways of assuring customer satisfaction.

Borden Names Two As New Sales Reps

Borden Chemical's Resins & Chemicals Division has appointed Sharon A. Zarifian and Perri L. Catey as sales representatives.

Miss Zarifian will be responsible for sales of Borden's synthetic resin products to the wood products industry in North Carolina, South Carolina and Virginia.

Mrs. Catey will be based in Chicago and represent Borden's Resins & Chemicals Division in the upper Midwest.

S.A. Zarifian

P.L. Catey

CHARLES F. MUGGEO has been named technical sales representative for the Carbon Black Division of J.M. Huber Corporation... FRANK M. MACERATO has been appointed operations and planning manager for "Airopak" containers at Air Products & Chemicals, Inc. ... RICHARD A. WINSTANLEY has joined A.E. Staley Manufacturing Company as a sales manager of surfactants in the Horizon Chemical Division.

GORDON E. SAFFOLD has been named manager of accounting and business information services for Virginia Chemicals Inc... LEE LIEBMANN has been elected president of Octagon Process Inc... DAVID C. BAKER has been named vice-president of operations for NuBulk Services, Inc., a subsidiary of Chemical Leaman Corporation.

C.F. Muggeo

F.M. Macerato

JACK A. BENNETT has joined Salsbury Chemical, a division of Salsbury Laboratories, Inc., as regional marketing manager... PAUL M. BRYANT has been named national marketing manager for fiberglass reinforced plastic coatings in the Coatings Division of Ferro Corporation... PHILIP J. ZA-

R.A. Winstanley

G.E. Saffold

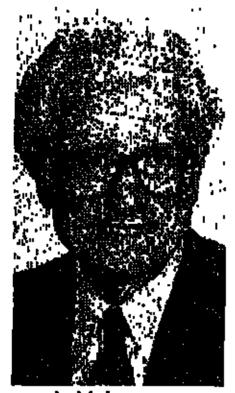
LUSKA has joined the marketing department of Freeman Chemical Corporation as a coatings specialist.

JOHN WALSH has been appointed vice-president of the Special Gases Division at Airco Distributor Gases, a division of the BOC Group, Inc... MICHAEL F. HILTON has been named manager of gas applications at Air Products & Chemicals Inc.'s process systems group and WILLIAM P. HEGARTY has been named principal engineering associate for the process systems group.

GERARD A. DOMINY has been appointed laboratory manager for Liquid Carbonic Specialty Gas Corporation's Chicago facility and EDMUND F. MEASOM has been named laboratory manager of the corporation's new laboratory in Orlando, Fla... RAYMOND W. BARNES has been appointed manager of engineering services at Betz Paperchem, Inc.

DONALD A. BACKLEY has been appointed vice-president of market development and technical director of Whittaker Corporation's Ram Chemicals Division... RAY J. OLESON has been elected president of Atlantic Research Corporation's new subsidiary, Systems & Applied Sciences Corporation... ROY S. HOLLOMON has been appointed director of purchasing in the fibers Division of BASF Corporation.

CAREY JACKSON has been named manager of quality assurance for polyesters and urethanes at Ruco Polymer Corp and ANTHONY ALBANESE has been appointed plant manager at Ruco's Hicksville, N.Y. facility... GEORGE A. PHILLIPS has been appointed business director of the Distribution Division at Chemtech Industries, Inc.



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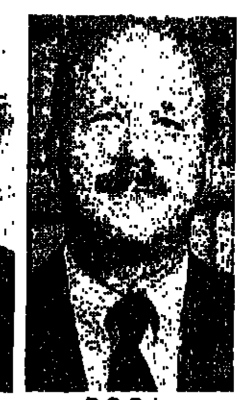

D.C. Baker

J.A. Bennett

P.M. Bryant

BUSINESS BRIEFS BUSINESS BRIEFS

BASF CORPORATION has added "Ultrapek" polyetherketone to its line of high-performance engineering materials. The new product is easily processed in standard and reinforced grades, BASF says, and may be injection molded, extruded or spun. It serves a wide range of applications, particularly for production of thermally-stressed parts.

CROMPTON & KNOWLES Corporation has introduced a deep-building bright blue dye designed for coloring acetate linings and other acetate fiber applications. The new product is part of the company's line of "Intrasperse" disperse dyes. C&K says the new dye possesses exceptional fastness to gas fading and is recommended as the base for navy and black formulations.

DU PONT is marketing a new consumer work glove "unconditionally guaranteed" to provide greater protection against cuts and lacerations. Called "The Ugly Glove," the product is made of "Kevlar" aramid fiber, the same material used to make bullet-resistant police vests. The material gives the gloves ten times the wear-life of cotton gloves, according to Du Pont.

ICI ADVANCED MATERIALS has added "Victrex" polyetherketone to its range of high-temperature engineering thermoplastics. The material will be available initially in unreinforced and glass fiber reinforced pellet form. ICI says it is easily processed on conventional molding and extrusion equipment and by standard processing techniques.

MONSANTO CHEMICAL Company's Rubber Chemicals Division has donated a Tensometer 10 to Georgia Institute of Technology's School of Textile Engineering. The instrument is used for measuring the tensile and compressive strength of various materials, including fiber, yarns and fabrics.

NATIONAL STARCH & CHEMICAL Corporation has introduced "Bondmaster" Plus 3000, a one-part neoprene "contact cement" for use in spray applications. The product has a 30 percent solids content, and provides fast, uniform coverage in mass production bonding of a wide variety of substrates for laminated panel, desk or countertop construction, National Starch says.

PPG INDUSTRIES has installed a new gas turbine, combined-cycle cogeneration unit at its Lake Charles, La., chemical plant, doubling capacity for lower-cost power and steam to produce chlorine and caustic soda, the company says. The $50-million-plus unit will save the equivalent of 850,000 barrels of fuel oil a year.

PLASTICS RECYCLING INSTITUTE has changed its name to Center for Plastics Recycling Research. The center, located on the Busch Campus of Rutgers in Piscataway, N.J., has been designated an "advanced technology center" byt he New Jersey Commission on Science & Technology.

SANNCOR INDUSTRIES, Leominster, Mass., has appointed Raw Materials Corporation as sales agent for the Texas area and Helzer Company as sales representative for the Northwest. Raw Materials is based in Houston, and Helzor is based in Lake Oswego, Ore. Sanncor manufactures solvent-based and waterborne urethane polymers for a variety of markets.

UNION CARBIDE Corporation has added "Ucarsol" CR Solvent 402 to its line of high-performance gas treating solvents. It is designed for bulk carbon dioxide removal in natural gas processing, and is effective in both sweet and sour gas streams, the company says.